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ABSTRACT

This report is a collection of 10 papers presented at a seminar attended by delegates of European Community and European Free Trade Association (EFTA) countries to discuss policies for education and training of the labor force. Four papers make up the section, "Policies for Achieving Human Resources Development and Lifelong Learning in a Changing Labour Market": "Welfare State, Education, and Responsiveness" (Haavio); "Human Resources Management in Ireland--The Role of FAS" (Leahy); "Competence Development within the Volvo Group" (Keen); and "Defining the Training Needs--The SAS Case" (Bevort). The section titled "Right and Access to Training in Post-Industrial Societies" contains three papers: "Educational Leave and Study Assistance in Sweden" (Rubenson); "Investing in People: The British Approach" (Grover); and "Present and Future Vocational Training Needs" (Terrier). Three presentations are included in the section "The Adult as a Learner: Towards New Trends in Workplace Learning": "Development Trends in Vocational Continuing Training in the Federal Republic of Germany" (Sauer); "Computer Integrated Manufacturing and Continuing Vocational Education and Training" (Schneeberger); and "Vocational Training Programs on the Workplace in Greece" (Sofianopolous). (YLB)

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New Challenges

in the Education and Training of the European Workforce

A seminar for EC and EFTA countries on policies for education and training of the labour force in a changing European economy

Presentations

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Presentations

A seminar for EC and EFTA countries on policies for education and training of the labour force in a changing European economy

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Policies for Achieving Human Resources Development and Lifelong Learning in a Changing Labour Market

Welfare State, Education and Responsiveness

Matti Haavio, Special Researcher, Ministry of Education, Finland

The development of Finnish society over the past decades has been unprecedentedly rapid. As late as after the Second World War and far into the 1950s and 1960s Finland was clearly an agrarian society. In 1950, the occupational structure in Finland was almost exactly that of Sweden in 1910: 49% of the workforce were engaged in the primary industries, 25% in manufacturing and 26% in the service industries (Riihinen 1990, 666).[1] Between 1960 and 1985, the agricultural labour force decreased from about 560,000 to 220,000 persons. During the same period, the productivity of agriculture increased two and a half times.

The welfare state and education

The same matter can be expressed in other terms. During the entire post-war period, and with particular deliberateness since the 1960s, Finland has developed into a welfare state which in many respects resembles her Nordic neighbours. To use Hannu Uusitalo's characterisation, wide-spread societal policy and the wide area of activity of the State are features that are typical of Nordic welfare states. Such a state offers benefits and services to the entire population. The level of transfers of income is high, and health care, educational and social services are primarily public. The increase of equality has a prominent position, and this goal is sought for example through a

redistribution of income (Uusitalo 1990, 337–338). One of the special features of the Finnish welfare state on the political level has been that its architects are not only the Social Democrats, but also, in particular, the Agrarian Party (formerly known as the Rural Party and now as the Centre Party). We might also add that there is perhaps no cause to speak of a patriarchal society in Finland: women in the agrarian society shared the work and the responsibility with men, and the Finnish woman has not been and is not in a clearly subordinated position (Haavio-Mannila 1990, 444–445); this does not mean that the occupations would be equally or equitably distributed between the sexes.

It is important to emphasise that educational policy is one of the cornerstones of the Finnish welfare policy. There is a belief in the significance of education for the success of the nation and of the individual even if its benefits cannot always be easily demonstrated, in particular in micro-level studies.

At the end of the 1980s and now at the beginning of the 1990s, Finnish educational policy has reached a situation that can be characterised as the advent of a responsive approach and of liberalism. However, I shall not go directly to today and to the present situation. I shall begin by reviewing some trends and tendencies in education over the past few decades. I shall characterise Finnish educational policy and planning through brief presentations, generalising designations and a few comments.

Finns have a strong faith in particular in academic education. The system of university education in Finland, which has a history of 350 years, has been a central impetus in all of the stages of the development of both culture and of the State. During the 1960s, the members of the "baby boom generation" born after the war years and that had completed their secondary education tried to enter the universities in the tens of thousands. However, there were not enough spaces in the universities, and what spaces there were, were concentrated in southern Finland. Systematic educational planning began by seeking to improve the position of those who were already relatively highly educated. This was strongly connected with regional policy. A system of higher education that covered the entire area of Finland replaced the system of institutions of higher education that, to a large extent, had been independent of one another. At

the same time, the intent was to emphasise that Finnish institutions of higher education had the status of universities. The development of higher education is guided and regulated through legislative and planning systems that are used in an attempt to ensure sufficient coordination and growth of resources. At the same time, efforts are made to ensure that the autonomy of the institutions of higher education is not violated.

The end of the 1960s and the 1970s were a time of a policy of equality in education. The focus was on the reform of mandatory education. The old system of parallel schools was dismantled and replaced by a nine-year comprehensive school.

We could continue to characterise the periods. The second half of the 1970s and the 1980s could be called the time of a rational utilitarian society in educational policy. The reform of upper secondary education, which followed comprehensive school was undertaken and completed. The central idea was to combine work and education in an appropriate manner. The fragmented vocational training was gathered into basic "majors" that covered wider entities than before, within which the student would select narrower specialist fields. An upper secondary school that provided a general education continued to exist alongside of vocational training. A system of education planning based inter alia, on labour market prognoses was created in particular for vocational education and training.

Long-term educational planning

An essential part of this system is the long-term educational planning that is the responsibility of the Advisory Council for Educational Planning (ACEP), which is appointed by the Government and which advises the Ministry of Education. It consists of representatives of educational and other administration, the national labour organisations as well as the national organisations for the municipalities.

Some basic information to begin with. Finns take part very actively in education and training. Table 1 shows that in this respect we are even ahead of our Nordic neighbours. However, the figures are in part misleading. The same person may study in different areas before entering the one he or she wants. In addition, those who did not receive training during previous years crowd the schools.

In part, the high figures are a reflection of the fact that Finland has been late in starting out. Almost one half of the work-aged population in Finland and about 40% even of those in the labour force still have at most a comprehensive school education. This fact, and clear recognition of it, has raised the education of the adult population to become one of the most important themes in Finnish educational policy during the 1990s.

However, adult education is not being planned as a separate field. The intention is to tie it closely with other education and with the educational system. The Advisory Council has prepared a proposal extending to the year 2000 on how vocational education and training and its different areas should be developed quantitatively. The primary method has been the so-called manpower method. Prognoses of the occupational structure and information and assumptions about the development of the economic situation have been used as the basis. On the other hand, it would be a simplification to state that we are satisfied with this. Figure 1 illustrates the frame of reference.

The development of the occupational structure and vocational training

The proportion of the Finnish population that is employed is quite high (Figure 2). More than three out of four of those between 15 and 64 are employed; this is true of about 90% of those between 30 and 34. In particular the proportion of women has increased over the past decades. It would appear that the degree of participation can scarcely be increased.

Figure 3 shows the predicted development of the occupational structure. Work in the services and in administration is expected to increase, and work in production and maintenance will decrease. The estimate is based, inter alia, on an analysis of census data, special studies and the opinions of experts.

Even though it cannot be predicted that the size of the labour force would increase very much up to the end of the century, there will be a considerable need for education. This is connected on one hand to natural turnover and the resulting need for labour, and in part to the change in the occupational structure and to gaps in the basic education of the adult population. The Advisory Council has,

indeed, drawn clear conclusions (Tables 2 and 3). The intention is to increase, in particular, adult education considerably during the present decade. According to the proposals of the Advisory Council, the number of persons beginning long-term vocational adult education (initial education and retraining) will almost double during the 1990s. By the year 2000, there shall be about 50,000 beginning such education, which would be about two percent of the active labour force. A considerable proportion would take a study leave on the basis of the system of financial support granted by the State and by employers. As is mentioned in the Finnish background report prepared for this seminar[2], arrangements for the financial support of adult students are beginning to have an established position.

All in all, at the end of the century some 128,000 persons would be beginning vocationally oriented training, or some 30,000 persons more than at the end of the 1980s. Most of the increase would be connected with adult education.

It is understandable that the need for education is particularly strong in the service sectors. This is also illustrated by Figure 4. The figure includes the educational sectors for commercial services, societal services and the cultural field. University level education is relied upon in particular in the cultural educational sector.

On the other hand, there is also a need for education in the diminishing fields. A field may undergo a thorough change and thus require new types of knowledge and skills. This has been taken into consideration in the plans.

There is reason to emphasise that in the setting of the goals, consideration has been given not only to institutional education, but also to apprenticeship training and job training for unemployed workers. An increase is predicted in the number of persons beginning also these types of training.

What is said above concerns initial training and retraining. The Advisory Council has also submitted objectives and estimates for other types of education and training. The objective for the year 2000 regarding the number of persons beginning the main types of post-degree and post-diploma education and training each year is about 30,000, including those undertaking post-graduate studies at universities. The projected annual number of doctorates in the year 2000 is about 800; at the moment some 400 doctorates are conferred

each year. According to the Advisory Council, by the year 2000 the need for further education in the form of staff development training would probably be at least five days a year per employed person. The present figure is about two days per employee.

The objectives presented here and other objectives proposed by the Advisory Council earlier have served as points of departure and as a framework for the preparation of the national development plans for both secondary and higher education. These plans, prepared by the Ministry of Education in cooperation with the various levels of administration, have been approved by the Government. The proposals submitted by the Advisory Council have also been used by the Ministry of Education in preparing the medium-term action and economic plans and the annual national budgets.

The situation in staff development training

A few points of clarification regarding staff development training are presumably in order.

Generally, staff development training is of short duration and may thus be classified primarily as supplementary education. It may, however, also be seen to include apprenticeship training and training given in special vocational institutions established and maintained by the employer. Some major enterprises also finance post-graduate studies pursued by members of their staff at institutions of higher education.

Staff development training is not governed by any comprehensive legislation; apprenticeship training is an exception to this (Act 1967/422 and Decree 1967/563). However, several acts concerning employment and different occupations and professions contain some provisions for staff development training. The following are examples:

- Employment Contracts Act (1970/320)
- Act concerning Cooperation within Undertakings (1978/725)
- Act concerning Cooperation in State Agencies and Institutions (1988/651)
- Teacher Education Act (1971/844)
- Labour Protection Act (1958/299)
- Public Health Act (1978/66)
- Occupational Health Act (1978/743)

– Social Services Act (1982/710)

According to the amendments made to the Employment Contracts Act in 1988, an employer must first try to retrain employees before making them redundant, discharging them or assigning them part-time work.

The Cooperation Acts also contain provisions on staff development and educational plans. The importance of this system will probably grow both in principle and in practice.

For example, the Finnish Confederation of Employers and the central employee organisations, as well as the Employers' Confederation of Service Industries and the central employee organisations have concluded agreements concerning detailed educational plans to be discussed in cooperation between the employer and the employees within enterprises. The agreements deal with alternative implementation methods in each personnel group for retraining, further and supplementary training and special needs arising from the introduction of new technologies. Further, they deal with questions relating to educational fields, core contents, target groups and providers of training.

The cooperation procedures are applied to enterprises with 30 or more employees. The State Cooperation Act sets no quantitative limits.

Table 4 and Figures 5–7 deal with the volume and distribution of staff development training. According to the data of the Central Statistical Office, from 1982 to 1987, the number of persons participating in staff development training increased by some 130,000, but the average duration of the training shortened, and at the end of the period there were fewer training days per participant than at the beginning of the period. All in all, the number of training days increased by about 380,000. In 1987, 75 per cent of the participants received at most seven days of staff development training. Thus, the question is generally one of supplementary training. The men participants had, on the average, more training days than did the women participants.

Outside of the framework of the tables and figures, we should note, inter alia, that the possibilities of those in more senior positions to receive staff development training are better than those of other employees, and the public sector trains a somewhat larger

proportion of its personnel than does the private sector. The State provides the largest number of training days per participant (somewhat less than ten during 1987).

In interpreting the data presented here, it should be emphasised that apparently at least part of the staff development training provided as internal training at the places of work was not reached by the labour force studies carried out by the Central Statistical Office. Thus, the figures on training are too small. Most of the training carried out by, for example, large industrial companies is carried out within the companies themselves.

Responsiveness and the welfare state

Entering into the 1990s, however, new thoughts, goals and principles have come up. These are connected to the decisions in principle made by the Council of State in March of 1987 and March of 1988 on the financing and development of vocational adult education and training. In these decisions, vocational adult education is formulated as consisting of self-motivated education, staff development (in-service) training and labour market training. The educational authorities generally have the responsibility for the provision of training. Students in self-motivated education pursue their studies on their own time, but they may receive support from the State and even from their employer. Participation in staff development training takes place on the order and at the cost of the employer. Labour market training is financed by the State.

A system of financial support, to which I have already referred, has been created as support for self-motivated adult education studies.

A new plan, however, is to alter the system of labour market training (presently called employment training) so that it takes into greater consideration market economy factors. The intention is to replace the present system with "labour policy training" which the labour authorities would purchase from institutes subject to the administration of education. At the same time, vocational course centres would be changed into vocational adult education centres that would offer a wider range of educational services than before. Their most important form of training would probably be adult training for employment policy purposes. The Government pre-

sented Bills on these issues to Parliament in February 1990.

It is highly probable that the position and role of staff development training will receive more attention in the future. The Advisory Council for Educational Planning has not reached agreement on its goal in staff development training, even though its members represent, among others, the national labour organisations. The Council has had to satisfy itself with a general assessment of needs extending to the turn of the millennium, to which I have already referred. And as I also mentioned, it is true that participation in staff development training has increased over the past decade, but at the same time the average duration of the training per participant has decreased. Despite this, there are signs that staff development training is seen as something that is part of the essential functions of a company. This is the case in particular because also in Finland we can expect to face labour shortage. The estimates of the Advisory Council are in the area of a few thousand per year, while the estimates of the employers' organisations are much larger.

It would appear that demand, with its various aspects, is becoming a concept of crucial importance. The trainee's own preferences are part of self-motivated education. The same shall be true to an increasing degree of staff development training and labour market or labour policy training. Demand is also connected with employers and the employment authorities: they demand training services from those who arrange training. We are faced with a situation where the essential question is the responsiveness of the educational system, and, at the same time, the responsiveness of educational policy: one has to respond quickly and adequately to what is desired, asked and demanded.

Can long-term planning fit in with such a situation in educational policy? The Finnish answer – although, it is true, hedged with reservations – is affirmative.

Today, we tend to prefer to speak of anticipation rather than of planning. On the other hand, one does not wish to discard old and established principles.

Society and the State are concerned about ensuring that sufficient and appropriate basic services – educational services included – are offered to citizens. We are not prepared to compromise on this.

Thus, the Finnish policy of continuous, lifelong education and

human resources development cannot be characterised as one of "either or" but rather of "both and". Education is prized, we seek to promote equality, and the doctrine of the rational utilitarian society is not dead.[3] At the same time, the field is taken over by growing responsiveness to the markets. It remains to be seen what this will mean from the point of view of the welfare state – scarcely, however, its demise. In our opinion, Finland is not alone in debating these questions.

Within the European Communities, the concept of continuing education is used to refer in particular to vocational education and training that takes place during a person's working life. The concept of continuing education (continuous education) as applied in Finland, however, refers to the entire cycle of human life, to the education system and to its operation as a whole. The idea is that every person should have, throughout his or her life, the possibilities for continuous and versatile development of his or her personality through systematic and flexible education. The Government of Finland expressed its views on this in the report on educational policy that it presented to Parliament on 22 May 1990. The section of the report on continuous education can be found as an annex to this paper. I believe that it has something to say about the choices and focus in Finland.

Annex

The principle of continuous education[4]

151.

The principle of continuous education is one of the most important guidelines in Finnish educational policy. The Council of State noted this already in the decision in principle it took in 1978 on the planning and development of adult education. The goal that was set was to develop the educational system of Finland so that everybody, at each stage of his or her life, would have the possibilities for continuous and versatile development of his or her personality through systematic and flexible education.

152.

The principle of continuous education is becoming increasingly topical and important. In practice, during the 1980s the development of our educational system was directed towards continuous education. The changes in society, culture and working life require an improvement, for more and more individuals, of the qualitative, substantive and quantitative possibilities for realisation of the principle of continuous education.

153.

The principle of continuous education applies to the entire educational system and to the entire population. As late as during the 1970s Finland could not afford to apply extensively the ideas of continuous education including among others an interchange between work and education. At that time, it was important to ensure that the reforms of the comprehensive school and the youth level education could be carried out.

154.

The principle of continuous education requires that among others the following ideas be applied in educational policy:

- Basic education during childhood and youth continues to have a key position. Increasing attention shall be paid to the development of educational motivation, individual learning capacity and skills, and the possibilities of flexible continuation of education.
- Continuous development of the educational system shall raise the educational level of the entire population. The fact that today, and still for some time in the future, there will be educational differences between the generations, and the need to continuously supplement and renew knowledge and skills in a manner that corresponds, inter alia, to the development of the occupational and professional structure demand that increasing attention be paid to the education of the adult population.
- Interchange between education, work and other activity shall be eased. Students should receive a wide over-all picture of the environment to which the education is intended to lead, as well as

of societal and cultural activity. In the future, an increasing share of learning shall take place outside of the educational system.

- Transfer from one form of education to another shall be eased and the system of education shall be developed in a more open direction. The borders between the different parts of the educational system shall be lowered, and structural barriers shall be lessened. The prerequisites shall be created also for lessening barriers to education based on social background, place of residence, occupational group, sex and attitudinal factors.
- In the development of the contents of education, the prerequisites shall be improved for continuous education and personality growth of the individual. The comparability of educational plans and their elements shall be improved. At the same time, it shall be made easier to integrate different types of education into an appropriate whole. The flexibility of education shall be increased also by developing student-oriented teaching methods and materials, and teaching based on a variety of methods.
- Flexible forms for the passing of examinations shall be developed so that the possibilities of utilising knowledge and skills obtained in different ways are improved. In order to validate the achievements, a student book or education passport shall be created for citizens, together with rules for its use. Examinations should correspond to the needs to qualify and other needs at different stages in life.
- Educational advice and guidance shall be made more effective and directed, in accordance with the principle of continuous education, in a more versatile way towards the future and action alternatives of the student, towards the planning of one's personal educational and employment career, and towards participation in society.

Tables and figures

in the order of the references in the text

Table 1:

Participation in education in 1987, by level of education; the figures are presented as percentages out of the age group

		Level [1]		
		First	Second	Third
World	1987	99,6	48,6	12,6
Europe	1987	103,0	89,4	25,2
Finland	1987	101,0	101,0	37,6
Sweden	1987	100,0	91,0	31,2
Norway	1986	95,0	95,0	32,9
Denmark	1986	99,0	107,0	30,2

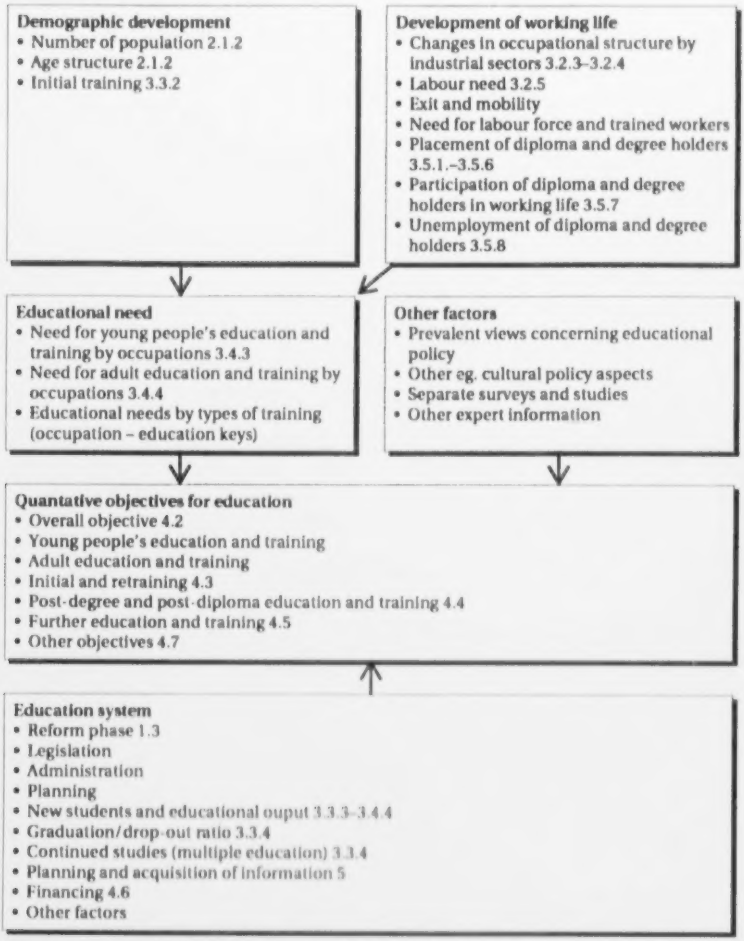
1 According to UNESCO's ISCED classification.

Source: UNESCO. Statistical Yearbook 1989, Tables 2.10 and 3.2.

Figure 1:

Framework for defining quantitative objectives for education and training

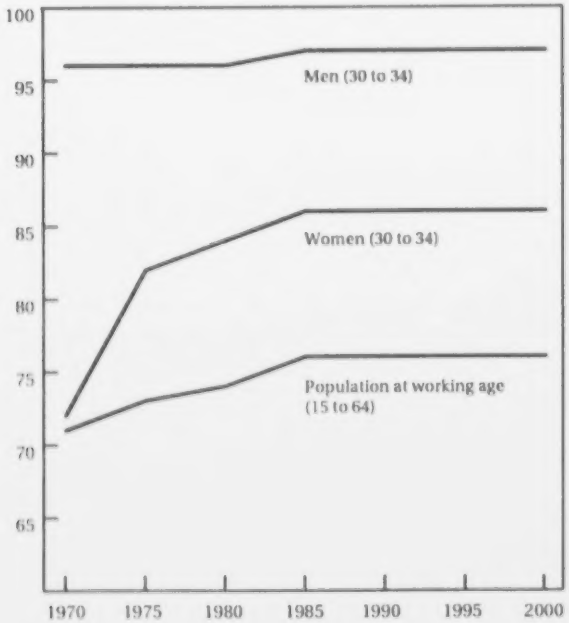
The figures refer to the relevant sections in the report Väestön koulutus 2000[1]


Demographic development
• Number of population 2.1.2
• Age structure 2.1.2
• Initial training 3.3.2
Development of working life
• Changes in occupational structure by industrial sectors 3.2.3–3.2.4
• Labour need 3.2.5
• Exit and mobility
• Need for labour force and trained workers
• Placement of diploma and degree holders 3.5.1.–3.5.6
• Participation of diploma and degree holders in working life 3.5.7
• Unemployment of diploma and degree holders 3.5.8
Educational need
• Need for young people's education and training by occupations 3.4.3
• Need for adult education and training by occupations 3.4.4
• Educational needs by types of training (occupation – education keys)
Other factors
• Prevalent views concerning educational policy
• Other eg. cultural policy aspects
• Separate surveys and studies
• Other expert information
Quantative objectives for education
• Overall objective 4.2
• Young people's education and training
• Adult education and training
• Initial and retraining 4.3
• Post-degree and post-diploma education and training 4.4
• Further education and training 4.5
• Other objectives 4.7
Education system
• Reform phase 1.3
• Legislation
• Administration
• Planning
• New students and educational ouput 3.3.3–3.4.4
• Graduation/drop-out ratio 3.3.4
• Continued studies (multiple education) 3.3.4
• Planning and acquisition of information 5
• Financing 4.6
• Other factors

1 Väestön koulutus 2000. Komiteanmietintö 1988:28 ("Education of the Population 2000. Committee Report 1988:28"). Helsinki: Valtion painatuskeskus.

Figure 2:

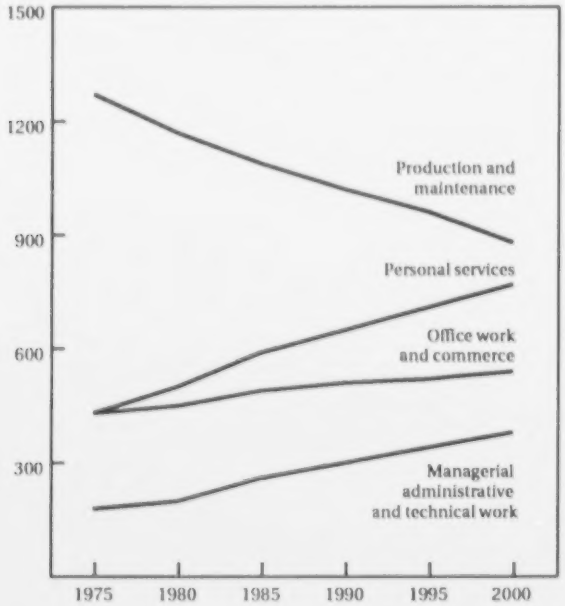
Participation of the work-aged population in work: all those at the working age, and men and women between 30 and 34 (all figures are expressed in percentages)



Source: Työmarkkinoiden tulevaisuus. Työvoiman kysyntä vuoteen 1990 ja tarjonta vuoteen 2000. Työvoimapoliittisia tutkimuksia 73 ("The Future of the Labour Market. Demand for Labour up to 1995 and Supply up to 2000. Studies in Labour Policy 73"). Ministry of Labour, Helsinki 1988.

Figure 3:

Changes in occupational structure in Finland 1975–2000 (in thousands)



Production and maintenance
Preparation work
Supportive technical work
Servicing and maintenance
Storage and transportation
Primary production

Personal services
Personal services
Health and social work
Cultural work

Office work and commerce
Office work
Commerce

Managerial administrative and technical work
Managerial administrative work
Supervisory technical work

Source: See Figure 1.

Table 2:

New students in vocationally oriented initial education and retraining by educational sector in the year 2000

Educational sector	New students in 1987	Objectives for 2000 (ACEP) The young	Adults	Total
1 Primary production	5939	4190	4600	8790
2 Engineering	35394	27150	17750	44900
3 Commercial services	32749	23340	16750	40090
4 Societal services	15609	16060	8000	24060
5 Culture	7459	7260	2900	10160
Total	97150	78000	50000	128000

Table 3:

New students in vocationally oriented initial education and retraining by form and level of education in the year 2000

Form and level of education	New students in 1987	Objectives for 2000 (ACEP) The young	Adults	Total
A Institutional education, total	79339	78000	18360	96360
I School-level	41292	37020	11080	48100
II Institute-level	22916	25870	4690	30560
III University-type higher education	15131	15110	2590	17700
B Apprenticeship and corresponding training	3433		8000	8000
C Labour market and corresponding training	14378		23640	23640
Total	97150	78000	50000	128000

Source: See Figure 1.

Figure 4:

New students in service-related initial education and retraining 1987–2000 (in thousands)

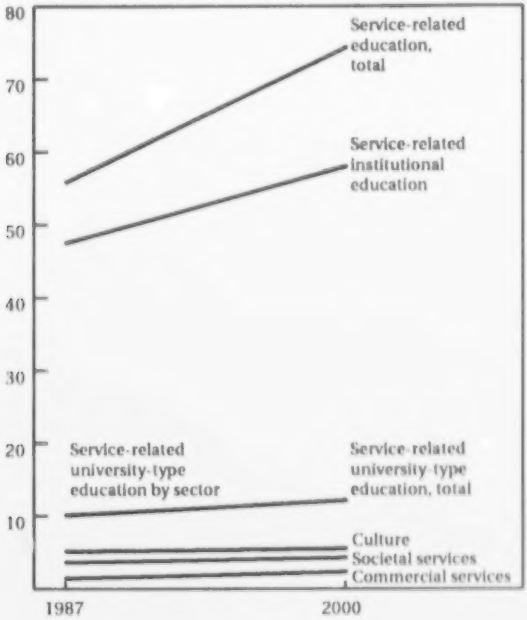


Table 4:

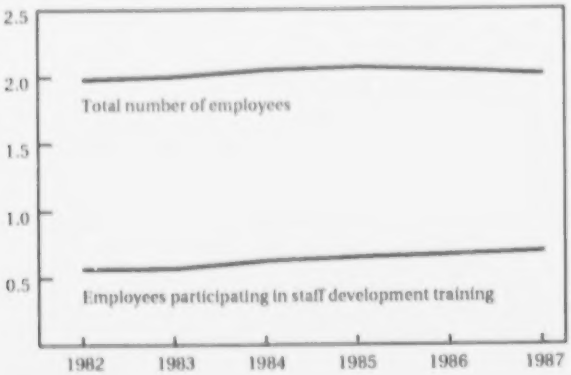
Employees and staff development training, 1982 to 1987

Year	Employees total	Employees participating in staff development training	Percentage of all employees	Number of training days per participant
1982	1 979 000	565 000	28,6	7,3
1983	1 997 000	569 000	28,5	7,6
1984	2 047 000	626 000	30,6	7,4
1985	2 067 000	652 000	31,5	7,1
1986	2 042 000	667 000	32,7	7,0
1987	2 012 000	693 000	34,4	6,5

Source: Henkilöstökoulutus 1982–1987. SVT. Koulutus ja tutkimus 1989:18 ("Staff Development Training from 1982 to 1987. Official Statistics of Finland. Education and Research 1989:18"). Central Statistical Office, Helsinki 9 October 1989.

Figure 5:

Employees participating in staff development training, 1982 to 1987 (in millions)



Source: See Table 4.

Figure 6:

Length of training during 1987 received by employees participating in staff development training

Source: See Table 4.

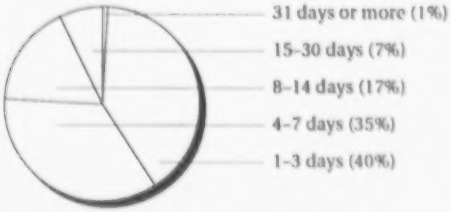
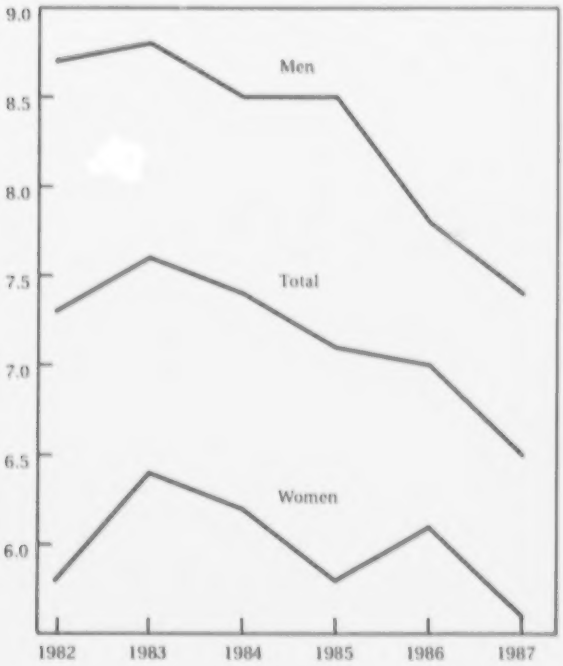


Figure 7:

Number of days of staff development training per participant, by sex 1982 to 1987



Source: See Table 4.

Foot notes

1 The articles written by Olavi Riihinen, Hannu Uusitalo and Elina Haavio-Mannila mentioned in this paper have appeared in Olavi Riihinen (ed.) , Suomi 2017 ("Finland 2017"). Jyväskylä 1990: Gummerus.

2 Continuing Vocational Education and Training in Finland. Helsinki 1990: Ministry of Education.

3 In addition to what is noted above, also the following plans can be mentioned. First of all, it is possible that a special youth school will be created in Finland, a form of post-compulsory education that combines vocational training and basic upper secondary education. The purpose of this is to lessen inequality and combine work and education in a new way. The goal is to shift over to education of a more general nature, based on the assessment that, after all, broad general knowledge is the best resource on the road of life; even so, of course one cannot compromise on the demands for preparing for an occupation. A second goal is to establish a network of institutions of vocational higher education. The present vocational institutes would serve as the basis. In this way, one would approach the German or the Norwegian model.
Furthermore, it might be mentioned that a concrete programme on education and equality between the sexes is under preparation. Even though the position of women in Finland is not, relatively speaking, bad, to a large extent education and work are divided by sex.

4 Section 2.2.7 in: Suomen koulutusjärjestelmä, koulutuksen taso ja kehittämislinjat. Valtioneuvoston koulutuspoliittinen selonteko eduskunnalle 22.5.1990 ("The educational System, Level of Education and Guidelines in Development of Education in Finland. The Report of the Council of State to Parliament on Educational Policy, 22 May 1990"). Helsinki: Valtion painatuskeskus. ■

Human Resources Management in Ireland – The role of FAS

Brendan Leahy, Director-General, FAS-Training & Employment Authority, Ireland

Introduction

The difference between successful and unsuccessful economies is, to an increasing extent, a reflection of the quality of human rather than physical resources. Modern technological developments have the potential to generate enormous increases in productivity in virtually every sector of an economy. However, many of these technologies are highly sophisticated and, consequently, a skilled workforce is required to harness their full potential. These technologies are also being developed and modified at a very rapid pace and this means that skills must be continually up-dated.

In short, the successful economies of the '90s will be those which are capable of utilising to the full the potential of the new technologies and this, in turn, requires a workforce which has strong intellectual and conceptual skills and which is highly flexible and adaptable.

We in FAS – the Irish Training and Employment Authority – have just completed an exercise in which we have set out to identify the skill requirements of the Irish economy over the period 1989–1994 and we are, at present, in the process of implementing a range of measures which are designed to improve the quality of our human resources and to make our economy better prepared to meet the challenges which lie ahead. I shall outline these measures shortly, but, first, I would like to briefly trace out recent economic and demographic trends in Ireland as these form the background of the analysis.

Economic background

The Irish economy has made a remarkable recovery over the last few years. From a position of no growth in the mid-eighties the economy is now growing at about 4% per annum and this rate is expected

to continue until the mid-nineties. This improvement will generate considerable employment opportunities and most economists are anticipating a net increase of about 85,000 jobs between 1989 and 1994.

However, this increase in net employment will not result in a dramatic reduction in unemployment which, at around 16% of the labour force, is surpassed in the EC only by Spain. This is because of the very high level of new entrants into the Irish labour market. Assuming no net emigration, the Irish labour force will grow by around 25,000 a year during the nineties – a staggering figure if one considers that in most European countries the youth labour market will be declining – in some cases very significantly. The birth rate in Ireland has begun to decline during the eighties, but this will not significantly affect the number of new entrants into the labour market until the end of the century when the numbers will begin to drop dramatically. Net labour force growth might be a low as 7,000 per annum by the year 2005.

Despite the high numbers of entries to the labour market, there has been no growth in the Irish labour force over the last few years – which has remained fairly constant at around 1.3 million. The reason for this is that there has been very high levels of emigration from Ireland – mainly of young people. Between 1986 and 1989, for example, over 100,000 (net) people left the country, 46,000 in 1988/'89 alone.

It is anticipated that the level of emigration will decline significantly over the next few years as job opportunities become available. In other words, many of the 85,000 additional jobs which will come on-stream over the next few years are expected to be taken by people who would have emigrated a few years ago and this is the reason why unemployment is expected to be still around 13% by the mid-nineties – although emigration may have declined to as low as 10,000 a year.

This scenario raises a number of issues which are very important in the context of human resource planning. Firstly, there will not be enough jobs in Ireland during the nineties to meet the demand. Consequently, if retraining and employment programmes are to be provided for the unemployed in general, the most that some of these programmes will be able to achieve is a redistribution effect;

namely a significant improvement in the ability of disadvantaged groups to compete for existing employment.

Improving equity in the labour market is, of course, a perfectly valid objective of manpower policy, but it is important to identify which programmes have equity objectives and which programmes are primarily geared to improving economic performance because, if a programme is to be effective, its design and its client-profile must be consistent with its objectives.

The second issue which the scenario outlined above raises in the context of human resource management in Ireland is the extent to which training policy should attempt to provide skills for the European economy. This is a complex and, at times, emotive issue and it has to be approached with great care. On the one hand, it is not in the interests of the Irish economy to facilitate the emigration of highly skilled people in whom the State has invested considerable resources and expenditure. Nor would it be ethical to promote the emigration of poorly qualified individuals who would have little chance of securing reasonable employment abroad.

However, it is clear from the demographic trends outlined above that, even if current growth rates are maintained, a considerable number of people will still find it impossible to secure employment in Ireland – at least until the end of the century. At the same time, the youth labour force in many EC countries – particularly in Britain and Germany – will be falling significantly. These demographic shifts provide a tremendous employment opportunity for such people – provided they have the right skills.

The case for providing training for persons who cannot secure employment in Ireland but who wish to work abroad is made considerably stronger by changes brought about within the Single European Market which should mean, in effect, that Irish citizens working in EC countries will have equal opportunities with citizens of the host country.

I shall return to these two issues presently in the discussion on strategy for the unemployed, but, first, I want to briefly outline the position in regard to continuing training in Ireland.

It is difficult to find information on the extent and funding of continuing training in Ireland and indeed in many other countries. This reflects the fact that continuing training usually takes place in

the firm and is funded by the firm and there is no State administrative apparatus which collects information on it. For the purposes of identifying skill requirements, FAS commissioned the Market Research Bureau of Ireland to undertake a special survey in August/September 1989. The results refer to all industry and services excluding public administration, health and education. The chief findings are:

- Of the total of 960,000 persons employed, 42% had received some training during the previous year. This includes 'sitting-by-nellie' training.
- About 1 in 5 persons received off-the-job training (21%).
- Training activity was much greater in larger firms. In two out of three very small industrial firms, no-one had received any off-the-job training during the previous year. In only 10% of larger firms was this the case.
- Most people only participated on short courses. However, 8% had received 4 or more days days off-the-job training. It must be noted, however, that this figure includes apprentice training, which, naturally, was of long duration.

As I have already said, there are immense difficulties in comparing data across different countries. Our reading of the available information suggests the following main points:

- The percentage of employees obtaining training in different countries varies greatly (from 10% or less to 50%). A rough average would be about 25%. In Ireland, the percentage receiving formal training is 21% – towards the lower end of the range.
- The average duration of training in Ireland seems to be considerably less than in other countries. Whereas in Ireland, the average duration is about 7 days, in some other countries it is double that. Indeed, in Germany, for 50% of persons on formal continuing vocational training schemes, the duration is over 1 month.
- At management level there is a gap between Ireland and other countries. In Ireland, 30% of managers received some formal training - in other countries the percentage is around 50%.
- In all countries, the highest proportions of training apply to persons with the highest education or qualifications. Equally, the

larger the firm, the greater the chance of receiving continuing vocational training. One of the reasons for the relatively low amount of training of employees in Ireland is undoubtedly the small average size of the firm.

This last point is significant in the context of industrial development policy in Ireland. Small firms are a characteristic of the indigenous sector, while the 'foreign-based' sector is dominated by large multinational firms. While the Irish economy has benefited considerably from the influx of multi-national companies over the last two decades, there is concern about the lack of integration between the indigenous sector and the foreign-based sector and the fact that the high level of export growth achieved by the foreign-based sector during the eighties (industrial productivity in Ireland over the period 1980–1987 was around twice the EC average) has not been translated into employment gains.

Consequently, the emphasis in industrial policy has shifted somewhat towards the development of a strong export-orientated indigenous sector with particular attention being devoted to areas where we enjoy a natural competitive advantage such as food-processing, timber, horticulture and aquaculture, as well as high-technology areas such as toolmaking and software development. The results of the survey into the level of continuing training in Ireland, however, would suggest that a major retraining programme in small to medium-sized firms is required if this policy is to succeed.

The need to improve the competitive capacity of the indigenous sector has acquired added urgency because of the imminent completion of the Single European Market. The indigenous sector has tended to rely almost exclusively on the domestic market. When the Single Market is completed, all barriers to trade between the Member States will have been dismantled and this will make small domestic markets such as Ireland vulnerable to competition from large firms which have the advantages of economies of scale.

Strategy

The analysis of economic and demographic trends outlined above has, of necessity, been very brief. However, it is sufficient to give an indication of what the major issues will be in the area of human

resource management in Ireland during the nineties. These issues can be broadly divided into two groups; efficiency issues, which are concerned with improving economic performance; equity issues, which are concerned with providing opportunities for disadvantaged groups so that the proceed of improved economic performance can be more evenly distributed.

Strategy to improve efficiency

In terms of improving economic performance, there are two issues which are of particular concern:

- that the projected increase in economic activity is not curtailed by a shortage of skills
- that the level of training in the indigenous sector is substantially increased so that the policy to create export-orientated firms succeeds.

FAS is taking a number of measures to ensure that the skills level of the Irish workforce will be sufficient to meet these objectives. Firstly, a National Manpower Forecasting Unit is being set up by FAS, in conjunction with the Economic and Social Research Institute. This Unit will provide data on the skill requirements of different sectors of the economy on an on-going basis so that policy-makers will be informed on the evolving training and education requirements of the economy in terms of both quantity and level of expertise.

Secondly, FAS is increasing capacity on its Skill Training Programmes by 20%. This measure will ensure that sufficient manpower resources are available to meet the projected increase in employment opportunities.

Thirdly, a package of measures is being introduced which is designed to enhance the performance of small to medium-sized firms. As a result of this package, twice as many employees will receive FAS supported training as at present (i.e. from 16,000 in 1989 to 32,000 in 1993). The package – which will be called the Industrial Restructuring Training Programme – will be available for a number of years. It will provide training – either directly or indirectly – for up to 14,000 people for each year of its operation at an annual cost of 6 million pounds. The Programme will include retraining and updat-

ing of skills courses, financial support for selected firms and research into sectoral skill requirements.

In addition, FAS will subsidise the recruitment of graduates with specific skills where firms are resource-constrained and need to employ such skills to develop their businesses and, in particular to create export markets.

FAS also operates a number of programmes where graduates are placed in firms overseas. The purpose of these programmes is to build a corps of highly skilled graduates to meet the needs of high technology companies in Ireland.

Unfortunately, a considerable number of these graduates are not returning to work in Irish firms when they complete their programme. This may reflect the relatively poor employment situation of the last few years, but it is nevertheless a cause for concern because it represents a waste of valuable resources. Consequently, FAS has taken a number of measures to rectify the situation; specifically, in future, graduates will be required to work in an Irish firm for at least three months before departing overseas. This measure should strengthen the bond between the graduates and Irish industry and, hopefully, more graduates will utilise their newly developed skills for the benefit of the Irish economy.

The resources devoted to management training will be doubled over the next few years. This measure will enable 2,000 managers a year to receive training compared to 1,000 at present.

Another aspect of our training system which requires change is apprenticeship. While Irish trained apprentices continue to excel in international skills competitions, the pace of technological change and the imminent integration of the European economies means that the present system must be made more flexible if Irish industry is to remain competitive.

The principal changes required include:

- the need to move from a time-served to a standards-based system,
- the need to improve and broaden entry mechanisms,
- the need to improve the cost-efficiency of the system,
- the need for nationally and internationally recognised certification.

Indeed, quality and certification are key requirements for all FAS programmes – especially training programmes. Currently, all training programmes provide some certification and FAS intends to extend the level of certification. The following measures, in particular, will be pursued over the next few years:

- Formalise the process to ensure that programmes meet the needs of Irish industry and provide recognised certification,
- Promote the acceptability of FAS certification within the EC – the subject of on-going discussions with relevant EC authorities,
- Consult with the education system with a view to developing recognition of qualifications and greater mobility between FAS and Educational institutions.

Strategy for improving equity in the labour market

The problem of distributing the proceeds from economic growth is not confined to Ireland – there are some 7 million long-term unemployed in the Community. However, long-term unemployment (i.e over 12 months) is a particularly difficult problem in Ireland. It affects just over 100,000 people, around 45% of the total unemployed. Moreover, it includes many heads of households. Indeed, the incidence of long-term unemployment among family breadwinners in Ireland has been identified in a number of recent economic studies as the single greatest cause of the relatively high levels of poverty.

In order to design measures which will be effective in combating long-term unemployment, it is necessary to understand the factors which give rise to protracted unemployment.

One of the most important factors is the level of educational qualifications. Surveys have shown that people with low educational attainment are very vulnerable to long-term unemployment. Over 50% of all young people who become long-term unemployed have no educational qualifications, while a further 37% have not completed the second-level school cycle. In contrast, up to 90% of graduates find employment within a year of entering the workforce.

A new package of measures has been developed by FAS – in association with the Education sector – to enhance the employment prospects of early-school leavers. The package will include a two-year Youthreach Programme for those who have left school without

any qualifications and a 17 month programme of linked training and work-experience for those who have only completed the intermediate stage. It is proposed that, in the longer term, the Youthreach Programme will be operated by the Education Authorities as the requirements of those who have no qualifications can often be better met by remedial educational inputs rather than vocational training.

Another reason for the persistence of high levels of long-term unemployment is that, to date, there have been few, if any, retraining or work-experience opportunities available to older people who become unemployed. In recent years, the availability of European Social Funding for the young and the long-term unemployed – but not for older people who are out of work for less than a year – has diverted attention from the difficulties which this group experience in trying to find employment. In many cases, their skills are no longer in demand, and, in the absence of retraining opportunities, many may fail to find employment and so join the ranks of the long-term unemployed. For example, the long-term unemployed made up less than a third of the total unemployed in 1980, but they constituted almost a half by the end of the decade.

To stem this process, FAS is going to almost double the number of retraining places available to short-term unemployed persons over 25 years of age. These people will be offered the opportunity to be retrained in the skills of expanding occupations.

A high proportion of places on our Enterprise Development Programme are also being targeted to this group as studies have shown that older people, who have not been unemployed for very long, are the most successful of the unemployed groups at creating viable businesses.

Surveys into the attitudes of the long-term unemployed to retraining, however, indicate that there are reasons, other than opportunity, why older people, in particular, might not wish to avail of retraining. Foremost among these are financial factors. Until recently, a person who attended a FAS training programme would get the equivalent of his/her social welfare entitlement. In the case of older trainees with dependants, this meant that being retrained actually cost money because these people lost many benefits in kind.

Consequently, retraining had to be made more financially attrac-

tive than unemployment if the strategy of stemming the flow of older people into long-term unemployment was to succeed. This has now been achieved by offering a premium payment, in addition to the equivalent of the unemployment payment, to unemployed people who would undertake retraining.

Other measures being pursued to improve equity in the labour market include subsidised employment opportunities specifically targeted at the long-term unemployed, and locating a greater number of training and employment programmes in deprived urban areas which have high rates of long-term unemployment.

Conclusion

In this short paper, I have outlined the main economic and demographic trends in Ireland over the last few years and the problems and opportunities which these trends have given rise to in terms of the management of our human resources.

If there is a lesson to be learned from this analysis, it is that the structure of labour markets vary widely across countries. While the pre-occupation of many European countries over the next decade will be focused on devising measures to increase their labour supply, Ireland will continue to experience difficulty in providing sufficient employment opportunities for growing labour force. While the measures which I have outlined will cost a considerable amount of money, it is money well spent if it succeeds in encouraging our unemployed adults to move from income support to retraining in new skills.

In this context, it is notable that a recent OECD report noted, with some disapproval, that most countries still spent more on passive than active measures and on social help for the unemployed rather than programmes which would "raise the competitive strength of the unemployed in the open labour market." Our hosts are well aware of the folly of spending large amounts of money on income support and the efficiency of their labour market is an eloquent testimony to the appropriateness of their policies. ■

Competence Development within the Volvo Group

Kerstin Keen, Ph.D., Volvo Competence Development Corp., Sweden

Since its foundation some 60 years ago, Volvo has consistently demonstrated a firm belief in the concept that its employees are the company's most vital resource. Without the knowledge, influence and workmanship of its employees, the Volvo Group would not be as renowned for its quality products, management flexibility, product development, productivity and profitability as it is today.

To quote Volvo's CEO, Dr. Pehr G. Gyllenhammar:

> "The heart of Volvo's strategic quidelines when it comes to people concerns leadership more than money. The more one gives, the more one gets back. Both inside and outside a company, people must constitute our foremost priority."

In this presentation I will mainly deal with three different aspects of competence as a strategic factor for the success of the company. First I will give a general overview of what we at Volvo mean by competence and a learning organisation. Secondly I will describe the role of modern technology and a new working organisation in our car plants, especially at Kalmar and Uddevalla. The third part of my presentation will deal with an educational programme for the whole group, where extensive use of video films made it possible to make all employees learn about their company as well as turning the managers into teachers.

What is competence?

In recent years the term 'competence' has come to the fore. In our dictionnaries the word 'competence' is usually explained as skill and capability, but it can also be defined as authorisation and necessary qualifications. The word competence has evolved from the Latin noun 'competentia' which means agreement. The noun derives from the verb 'competere' which means to coincide, to agree, but also to be capable. The word 'competitor' has the same origin as the

word 'competence'. Talking about competence in business, ability to do a job is the essential feature. How are we to judge this ability, however? What does the word ability actually mean?

If we are looking for a symbol of human ability, what could be more natural than to choose the hand? We use our hand to create things. Being competent means being able to handle a situation, to take action, to use one's hands and one's ability. We can use the hand with its fingers to symbolise the word competence. The hand is made up of a thumb, four fingers and a palm. Every finger has a task to perform. Competence is a compound, and made up of different parts, just like the fingers of the hand. Each finger represents part of the competence.

To begin with you need *skills* – the ability to do things, the ability to handle tools. Let the thumb symbolise skills!

Knowledge is the collective term for facts and methods. Different tasks call for different types of knowledge, different types of facts and methods. We can use the index finger to symbolise knowledge.

The best way of acquiring knowledge tends to be through the spoken and written word: from books and in formal learning situations, in a classroom with a teacher and pupils. Skills can only be acquired by practising again and again, by repetition. The connection between knowledge and skills is perhaps most obvious when it comes to the ability to communicate in your native tongue as well as in foreign languages. Only in real-life situations can school English be practised and polished. In such situations there is seldom a teacher on hand to tell me if I make a mistake.

In our knowledge-based society, knowledge is becoming increasingly important, but the combination of skills and knowledge is usually what enables us to handle situations, in precisely the same way as the ability of the hand to grasp things is a result of cooperation between the thumb and the index finger. We usually come to an understanding by combining knowledge and skills; we comprehend.

Learning from *experience*, from success and from mistakes, symbolised by the long finger, calls for reflection, the opportunity for the individual to think about what has happened and what he or she has learnt. Not until one has reflected and learnt from one's experience, one can develop the ability to master similar situations more effectively.

The combination of knowledge, skills and experience produces expertise or know-how. However, the ability to take action, to handle a situation, usually requires more than expert knowledge, it requires *contacts*, influence. The ring finger can be used as the symbol of the way people are joined together.

Finally, the little finger represents *values*, the desire to share fundamental beliefs and the will to act, but also to take responsibility for one's actions. It is essential that a group of people who are expected to do a job together share the same attitude and beliefs. It is equally essential that individuals and groups take responsibility for their actions. The courage to stand up for one's beliefs is important, it is all too easy to run away. The person who refuses to take responsibility is not competent, he or she is unable to deal with the situation.

The five fingers have to be coordinated if the hand is to create anything. This takes place in the palm, through the power gathered there. Sometimes physical power is most important, to strike a powerful blow, for example. Nowadays, mental *energy* is what is needed most. Energy is required to perform a task.

With the above analysis of competence, the next step is to make an analysis of what competence exists within the group, a department, a company, and what type of competence is needed. The fingers can learn to do new jobs, they can improve the way they coordinate movements. The competence of each individual can be developed in the same way. New knowledge can be acquired, skills can be learnt by practising them.

A hand, with its fingers and palm, which has been cut off from the body can never create. The individual's competence in the shape of knowledge, skills, experience, contacts, values and energy is not enough. The hand needs to be controlled and nourished if it is to function. *Leadership* (supervision) can be symbolised as the nervous system; every individual wants support and encouragement from his or her boss, he/she needs to know what will be rewarded and what will be punished. The boss' ability to involve, motivate and develop his or her staff is becoming increasingly important.

A new model for investment decisions

Volvo's investments in both product development and production equipment have been considerable during the last few years, and our investment programme for the next few years has been estimated at 45 billion SEK. But all is investment in human capital. We have therefore tried to find a model including hardware and software, both equipment and people. A decision model connecting hardware and competence investment has evolved.

Decision model

Goal Cost/unit Unit/week Quality index	
Demands change concerning:	
Hardware	Human behaviour
Output; Hardware capacity	Competence - Skills - Knowledge - Experience - Network - Values
	Leadership
Alternative investments in hardware	Alternative investments in people - Education and training - Information - Work organisation - Recruitment
Decision on investment	Decision on investment

A pilot project regarding this type of investment analysis has just been made in one department regarding investment in CAD. A taskforce consisting of engineers, economists and personnel people have tried to estimate the investments in the employee needed to make the utmost use of the investment in hardware. The taskforce has found, that in this case investment in people is almost as costly

as investment in hardware. The main cost is not in courses to get new knowledge, even if the cost is considerable. No, the main cost is in skill training; it takes as long time for the designer to get used to CAD and to be as professional in front of a terminal as in front of a drawingboard.

Exchange of experience is also important both within Volvo and outside Volvo, as well as building up a good network. But introducing new techniques also implies development of new working methods, new routines, new leadership, that must be consistent to the ground values of the organisation. So the full hand is needed. In business we also always rely on groups, not only on individuals.

Towards a learning organisation

For Volvo there have been many obvious benefits resulting from devoting time and money to the further education of its workforce. A person who sees his or her skills grow becomes stimulated and gets more out of work. And the more pride one has in what one does, the better the end result.

No organisation can be changed unless the people involved also have the opportunity to influence the direction of the changes. Thus, Volvo has consistently pursued a policy of employee involvement at all levels of the organisation. The ever more complex machinery of production and the mounting demands for better quality place high demands upon the individual worker, who now bears a heavier burden of responsibility than ever before.

The first radical expression of Volvo's new human-oriented factory philosophy came with the construction of the Kalmar assembly plant on Sweden's east coast in the early 1970s. A decision was made from the beginning to apply modern thinking on work organisations to the Kalmar plant. Pehr G. Gyllenhammar explained:

> "We want a factory where the employees will have the opportunity to work in groups, to identify with the products and influence their working environment without having a negative impact on efficiency or the economy of the operation. A product made by people who experience their work as meaningful will be of the highest quality..."

New technological solutions had to be developed for the Kalmar plant. For instance, one innovation was the development of automated carriers that took a car chassis from work station to work station until it was fully assembled. Other innovations permitted a chassis to be tilted 90 degrees to ease assembly, while each work station was sited near a window to improve the working environment.

As early as the beginning of the 1970s, those working on the Kalmar project at Volvo had a dream of turning traditional manufacturing technology around. Instead of a car passively creeping through a stock room of components, they visualised an organisation where the car stood still, while the team of people assembled the various components into a finished vehicle.

Uddevalla, a small coastal town north of Göteborg, was chosen as the site for a new assembly plant where the concept of craftmanship would be re-introduced in its traditional meaning, although in a modern industrial setting. The Uddevalla plant, scheduled for completion this year, will have the capacity to produce 40,000 cars annually in one shift.

There are several major differences between Kalmar and Uddevalla. In the former, teams of workers each produce their own specific section of a car, whereas Uddevalla's teams of up to 10 people build a complete car.

The degree of skill and competence found in each individual team and the division of production into six workshops give outstanding levels of flexibility – one is able to build many different versions of a specific car in rapid response to signals from the market! The Uddevalla plant also permits realisation of another old dream from the Kalmar project days. Each production team at Uddevalla will be able to say to itself: "Now we have completed the car to our satisfaction and put our stamp of approval upon it, we can call up the customer in a few months and check that he or she is pleased with our work..."

The only qualification needed to be employed as a car builder is to have a driving-license; if you have not got a driving-license you are not interested in a car, and how could you build a car if you are not interested in it? Naturally, however, new production ideology has placed heavy demands upon providing workers with the level of

education and know-how needed for them to become car craftsmen rather than merely assemblers of components. Thus, each employee at Uddevalla undergoes a 3-month basic training programme.

We actually also give diplomas to those who are able to build a complete car without any quality problems; so far we have handed out twelve diplomas to twelve car builders.

When Henry Ford introduced the conveyor belt in Detroit, it revolutionised the industrial work organisation. But this needs to be put into a historical perpective. The new production machinery was ideal for making full use of the vast resources of untrained labour available in the USA of that period; for a Volvo standing poised on the edge of the 21st Century, the situation is quite different. The labour force nowadays is young and well-educated, with high expectations regarding life and work. Volvo has combined industrialism's demands for efficiency with the craftsman's demands for quality; and has succeeded in placing advanced production technology in the hands of well-trained workfolk.

Promoting a participative corporate culture

Many companies around the world use the same technology as Volvo, few have gone as far in implementing the belief that for people to grow they must have a good knowledge about their company and its role in society.

At group level, we some years ago developed a special training programme, *The 'Dialog' Programme*, which had a number of objectives. First we wanted to increase the understanding all Volvo employees have of the Group's activities, but we also wanted to create a programme of management training by giving managers educator roles. What we hoped to achieve with these training activities was to make a contribution to organisational development, helping to make the entire Volvo group an even better company. To make Volvo employees learn about Volvo's history we produced six videofilms.

Further education in Sweden has strong roots in the study circles, with small groups discussing their own knowledge and experience, led by an eductor or instructor. The obvious person for taking on the role of educator or instructor is the foreman/manager; with working groups being the natural training group, or study circle. The 'Dialog' programme was thus implemented through groups of employees

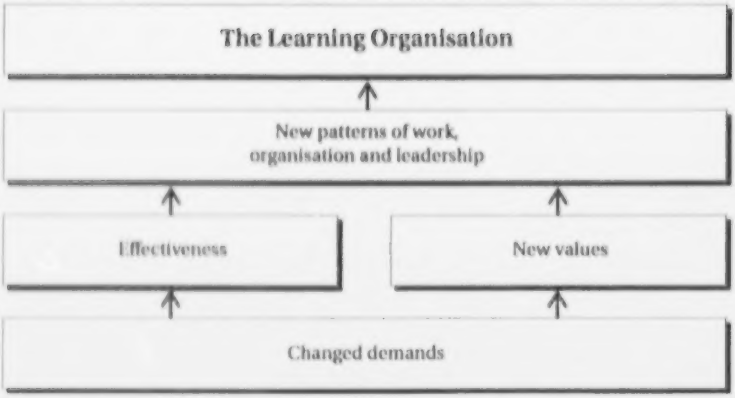
who usually work together, with the foreman or manager of the group leading the dialogue. Thus the 'Dialog' programme was aimed at turning our supervisors into managers by giving them the joint role of educator, leader and listener.

The Volvo Group in Sweden has over 50,000 employees and nearly 10,000 managers at various levels. Obviously, many of these managers, the majority of whom are already managers with often large fields of responsibility, find it difficult to take on the role of group leader and educator. So, to help the managers initiate a dialogue with their groups, we produced a comprehensive package of aids, including films, a text book, and teaching aids, in the forms of maps and overhead slides. We also produced a jigsaw puzzle whose motif symbolises the development of the Volvo Group since 1924.

The 'Dialog' programme is divided into four parts, each of which has its own title or theme. The various study materials are matched to the different themes and serve as a starting point for the groups' discussions. However, the materials must never become too important, but should suggest different lines of approach and the sort of subjects that can be discussed. What is important in the discussion within the group is the dialogue, that the manager must lead. It is his job to involve everyone in the group, and to listen to the different experiences and suggestions. But to do so, he must be well prepared and the material, produced centrally and for modern technology, was of great help.

Nearly all the materials used in the 'Dialog' propgramme were specially produced for the programme and are designed to stimulate discussion and debate. The films include documentary material and newly recorded sequences. However, what all the films have in common is that the characters are all Volvo employees – not professional actors. We have visited Volvo employees, both in Sweden and throughout the world, to find out what they think of their company, and what they would like to do for Volvo. It was hoped that these films will help the members of individual 'Dialog' groups in the different companies to recognise their own situation, and thus be prepared to take part in the group discussions.

A part of the programme, known as 'Volvo Today', is concerned with imparting facts about the dynamic group of companies. The most important part of the programme, though, is the last part,



which deals with values and assessment and looks to the future. In this part it is particularly important that the manager/group leader discusses everyday work and takes careful note of suggestions and ideas that are forthcoming. Nobody is better placed than the individuals of the working group to see where changes should be made and where improvements are necessary. At Volvo we want to build our workplaces into a learning organisation.

What is a learning organisation?

A learning organisation

- Is receptive to ideas from outside
- Is characterised by a creative working climate
- Is flexible in structure. The individual takes on the role required for the task
- Any problem is solved at source by the people concerned
- Competence and ideas steer more than formal power and structures
- Leadership is charcaterised by process and communication
- The development of products creates competence which is systematically transferred to and utilised by the next level
- Emphasis on the value of continous improvements
- The professional exchange of ideas and debate is welcome
- The reward system supports renewal ■

Defining the Training Needs – The SAS Case

Bernard Bévort, Vice President Personnel,
Scandinavian Airlines System, Copenhagen, Denmark

Setting the scene

Although SAS, Scandinavian Airlines System, is much more than an airline, this presentation will focus on the training needs within the airline as such. The airline has 22, 000 employees; we pay them about 7 billion kronor in wages every year, and we spend about 700 million kronor every year on education and competence training of various kinds.

In order for you to understand what I am going to talk about, there are a few things that I have to point out. Firstly: to run an airline is more or less like running a travelling circus. There are lots of separate acts which each must be done very professionally, but it is the whole experience which we are trying to sell tickets for. And that takes some doing where skills are concerned, but also in terms of social cohesion.

Secondly, when we use our energy and our money on education and skills training, we do this because we are in business to do business. This is not because we are especially cynical people, but we must recognise that if we do not make a proper profit, we are not in business any longer and there will be no jobs – and no training. Therefore, somewhere in the background we must always respect that there must be a pay-off for whatever we do – and what we are trying to do is rather extraordinary.

Thirdly, we are very much concerned about individual development and the individual person. It is not, however, because we have been taken by a fit of humaneness. It is because we as a sober fact have realised that if we are going to survive in our kind of business, we have only one resource on which we can count and that is the people who are with us. Again, this is not out of sentimentality or romanticism. We are in the situation where we pay very high wages

– it is a fact that the Scandinavian wage level is higher than in most other countries with which we compete. So since we shall not and cannot compete on price, we have to create a higher quality in the people we employ; it is only by the extreme competence of our associates and our employees that we are able to survive.

A market of individuals

We are firmly convinced that in order to create an added value in our employees, we have to shift our viewpoint from seeing them as tools, as a kind of extension of our mechanical appliances, to seeing them as partners in the project that it is to run an international airline, whatever that implies. That again is tied up with the fact that we in the modern service-industries have realised that we should not primarily orient ourselves against production, or the creation of the product which we sell or promote. Instead we have to orient ourselves against the market and, in last instance, the market consists of people, individual people. The more we are able to lift an individual passenger out of anonymity, the more we think we are going to succeed, but again, you cannot take the anonymity out of being a passenger with machines – you have to do it with people. So the people who work with us have to be very independent.

This gives the basis for our way of training which is very much oriented against the individual. However, how do we convert these concepts – which are not more than about ten years old even in our business – into actual practical facts? How do we in actual facts make 22,000 employees into individuals and treat them as such?

"Competence 2000"

One of the big problems about training is that most training and training needs are defined, not by those who have to get that learning in between their ears but by those who already *are* qualified – the professors, the trainers, the instructors, the administrators. The result of that is that we get a lot of irrelevant training. When we use the vocational schools in the public system to train our employees, we are forced to choose from a catalogue of different offers which perhaps only to 50, or 40, or 10% cover our actual needs. No wonder that a lot of our people get tired of being taught, when they have to take 90% chaff to get to the kernel!

What we are trying to do is to turn this thing over. We have been active in a government-sponsored programme called *Competence 2000*, on which we until now have used 11 million kronor of the Danish tax payers' money and 40 million of our own in order to develop a seemingly new procedure and method for the definition of training and educational needs. In this programme we take our point of departure in asking the business units and the individuals concerned: "What do *you* think you need in added competence and skills in order to survive in the world which we can see in a perspective of five years?" The definition of the training needs – in specific and concrete terms – is done by the employees themselves, and from there, they are sent to the appropriate training centers and vocational schools. Thereby we hope to manifest in a very concrete way that we are seriously trying to individualise our way of working with people.

Competence 2000 today involves four big Danish companies and institutions and has affiliated with a number of other big businesses, so many that we now have organisations of about 200,000 employees involved. The project will give its final report at the year end.

Concluding remarks

Just as Volvo, we feel a great need to create some kind of cohesion in this travelling circus which our business is, some kind of collective basis of values, and there one of the crucial points is the increasing disparity between training for technical skills and training for social skills. On the side of technical skills training, there is the rapidly increasing efficiency of modern training techniques, especially computer-based training, which is influencing the whole situation of education and training. In the training of social skills, on the other hand, we are still working at a level where not much has happened in the last 15 or 20 years. This is a problem which will have to be tackled very professionally.

Another development I would like to comment upon is that we are now, especially in Denmark, going through a period where, with the best of intentions, we are trying to liberate everything that has been government-controlled and run and "get the whole thing a bit more commercial". In consequence of that, a lot of government

money is being spent on the commercial colleges etc., to the detriment of the humanities, for instance, and other kinds of more classical teaching. In my view, this is a wrong way to create a basis for a modern society.

It is necessary to re-evaluate the respective roles of, on the one hand, the public educational system and, on the other, training systems being established and run by private business and make a kind of contract between those who utilise the labour force and those who take care of the basic educational needs – the school system which, when all is said and done, is the basis of our culture. The more we in business need to adjust to rapid change in necessary skills – as in everything else – and the more our technical ability to provide those skills increases, the more important the role of the public educational system become as a provider of the mental conditions for change without sacrificing continuity. ■

Right and Access to Training in Post-Industrial Societies

Educational Leave and Study Assistance in Sweden[1]

Professor Kjell Rubenson,
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In this brief presentation of Swedish strategies, I would like to focus on the issues of efficiency and equality and a phenomenon which could be called educational inflation. The main issue is if the strategy involves directing the resources for education and training to certain target groups, or if it merely aims at increasing educational attainment for all through legislation or acts of education. I would say that if there is a name of the Swedish game, it is dual strategies within a holistic policy.

Background

Sweden has a law on educational leave which came into effect in 1975. This law gives employees a general right to leave for studies, but no general, unlimited right to paid leave – there we have this dual strategy. Behind this idea of a separation between right to leave of absence and entitlement to financial compensation is the ambition to target certain groups, as well as the ambition to offer these groups an education of a general nature, an education which is at the employee's request. Obviously, if we had a general right for everyone to take paid leave for any kind of studies, we would get an enormous inflation of education and cost. The notion here is that the separation is the foundation of the system.

Who should then be entitled to paid leave? The system was designed for those who were disadvantaged in educational and other

terms, at the time defined as employees who had less than nine years of formal education or were disadvantaged in other respects. It is financed through a pay-roll tax, which basically means that the employer covers the cost of lost earnings. However, this money does not go directly to the employee, but to public funds through which the money is directed to certain target groups in the form of study allowances. This is a very important part of the strategy.

Before I continue with the pros and cons of this scheme, we should look into the background of the law. The reason why Sweden chose legislation in this field was that the social partners, in spite of far-reaching negotiations, had been unable to come to an agreement on this point. At that time, the government intervened through the creation of a law – a phenomenon which happens to be characteristic of Sweden.

This happened at a time when adult aducation, for reasons of equality and economic democracy, was very much in focus. There were other measures taken, i.e. an increase of the public funding of adult education at various levels, but we have to understand this reform primarily as an equality reform. It also coincided with the Co-determination Act (1976) – this was a time of great changes within the Swedish labour market.

The funding of the study assistance scheme comes in two forms, one for adult study subsidies for longer studies which makes it possible for someone with a short formal education to reach the level of upper secondary education, sometimes also including secondary education. The other part of the funding is for short-term study assistance on an hourly basis.

The development of this procedure for educational leave and study assistance was a necessary, but not sufficient condition for increased access to adult education in Sweden.

The other challenge concerned the question of demand. The potential adult learners were people who for various reasons do not request further education. Thus, the strategy was part of a more comprehensive strategy to create a demand for education, without creating educational inflation by giving more to those who were already taking advantage of educational opportunities. A very important part of this strategy was the allocation of some of the funding to outreach activities at the workplace. Through the Shop Stew-

ards Act and the Co-determination Act, union officials – who could then be seen as a kind of educational brokers – were given the right to do outreach work during working hours.

Reform evaluation needed

Research and evaluation of the implementation of the Educational Leave Act have shown that there is certainly nothing wrong with the strategy – the law created a demand for education from the right people. The only problem is that the amount of money available for subsidies has been too small to give all those who request educational leave a chance to make use of it.

To what extent then, have employees actually taken advantage of the rights to study leave? The Swedish Employers' Confederation has very good statistics on the use of working hours and we can, for example, see how many employees are taking leave for educational purposes. It is interesting to notice that the lowest use is in the highest ranks, i.e. among professionals, which of course indicates that they do not have to take leave of absence to get education in any form; they get it through other means and as part of their regular work. Instead it is to a large extent middle range people who take advantage of their legal rights. They spend about 4%–5% of their working time on educational leave, whereas blue-collar workers spend 1.9%. However, if we look at who gets special subsidies, it is almost exclusively people who are at the lower ends of the salaried employees or the lower ends of the blue-collar workers.

So let us say the system works; the question is how to finance it. Again, there is this very interesting separation between putting the employers' money into the public purse and then setting up ways to move it back to the target groups. At present, there is a governmental task force analysing the future needs and resources for study assistance.

Learning rights and adult basic skills

Another law worth mentioning is the act which obligates all municipalities to organise what we call adult basic education, which is equivalent to elementary school level, for anyone who requests education at that level.[2]

We are now moving into a new era. If the era of the 1970s was the

era of equality leading to the above measures, we are now in an era of interchange between equality and efficiency. The arguments are as follows.

First of all, the general educational level of the Swedish workforce is low, at least compared with the Japanese workforce. Formal education is also very unevenly distributed among different age groups. What was earlier considered to be the level of knowledge representing requisite basic skills, nine years of schooling, is now talked about as knowledge corresponding to eleven or twelve years of schooling, at least when it comes to some fundamental subjects of general education like Swedish, English, civics and mathematics. The argument is that in a welfare state, where welfare is defined at the middle class level, educational welfare should be defined as the level of secondary education.

Secondly, the unions are realising more and more the truth of the old device that knowledge and skills are power, which means that the question of control over knowledge and skills has now, in a changing economy, taken a new turn. Recent reports from the Union of Professional Employees and the Trade Union Confederation present very strong demands regarding the interlink between a changing working life and a more competent and competitive workforce. At the same time, we know that Swedish employers have extremely large expenditures for education. It is estimated that employers spend between 1.8 and 2.2 per cent of the Swedish GNP on education, including the wages and salaries paid during study leaves. This is a very large sum and consequently, the employers doubt whether the level of expenditure could be raised very much higher.

Concluding remarks

Again we can foresee a dual strategy where the State and the public authorities, probably in a new partnership with the social partners, will have to take certain responsibilities for increasing the general competences of the workforce. The National Labour Market Board has presented a programme for between 80 and 920 hours of education at the workplace for which the employers could get a reduction of the pay-roll tax; this is part of a broader labour market strategy within the framework of in-house labour market training progam-

mes. These issues will also have to be dealt with by the present parliamentary commission on competence and skills development in working life.

The act on the right to study leave aimed at providing competence equivalent to nine years of formal education. Raising this level to education at upper secondary level is one strategy which will be discussed now that all three parties are involved, but whether it will take the form of a law remains to be seen. In the direct negotiations between the social partners, the issue of general rights to paid educational leave of a certain duration, or rights connected to the changes of working life will be in focus. The question is whether the employee should have a general right to two weeks' leave, which has been discussed, and whether this right should be linked to changes of the content and organisation of work. On the union side, this link to the change of qualifications is very much in focus and one is arguing for an increased influence on this issue.

This brings us back to the very fundamental question of demand. If we change work itself, this will create an increased demand for education and training among employees. It will also create a change in productivity. What will be negotiated then is how the gains should be distributed, but there is no conflict between the unions and the employers about the notion of productivity and the link between education and productivity, even if, naturally, there are differences of opinion about who should be in control.

It is obvious that we have moved into a very interesting era in Sweden where the changes at the workplace are now linked to the negotiations on educational rights and this, I think, is the gist of where efficiency and equality meet. One side is of course arguing for the transferrability of the knowledge which the education will provide– we shall probably hear more about that. However, what goes through all this is still the question of how to target certain groups; we know that if we only introduce general rules, the services will be consumed by the people who normally demand and receive education.

Another question is whether this belief in an increase in productivity is justified; the Swedish policies are to a large extent built on the notion of increased productivity, not only within Volvo, for example, but also in the public sector. The recent mandate to the

committee for competence and skills development states very clearly that any new financial resources will have to come from an increase in productivity. I think that is somehow the answer to the question of demand. ■

Editors' note.

[1] A more extensive presentation of Swedish policies is made in the report Education and Training of the Labour Force in the EFTA Countries by Lars Arvidson and Kjell Rubenson.

[2] In February 1991, the Government presented a bill to Parliament which suggests that every adult should have the right to education at the level of nine years' formal schooling.

Investing in People: The British Approach

Derek Grover, Director of Systems and Strategy, Employment Department Training Agency, United Kingdom

Introduction

There is broad agreement across the wide spectrum of opinion in Europe that education and training are key investments that countries must make if their economies are to prosper and to be competitive. In the mixed economies of Western Europe investment comes from employers, central government, local authorities and individuals.

The issue we are discussing in this session could be summarised as answering the question: What is the best way of ensuring that investment in education and training meets the needs of all the relevant elements in society, including the needs of the individual worker and learner? There is, of course, no single right answer which would be appropriate in the situations of all the nations represented here today. The approaches adopted in different countries will reflect their culture, history and political and economic systems.

This paper outlines the British Government's stance on the issue of a right to education and training, the rationale behind that stance and some of the ways in which we are ensuring that employers and individuals have access to the education and training they need.

The British approach

British society presents many paradoxes to the outside observer. One of them is that we have no Bill of Rights and yet we have a proud tradition of prizing the freedom of the individual. Despite our having no written constitution we have a long history of democratic government.

We are today discussing rights to training and education. It is important to define our terms. A right must be capable of precise statement, and to be effective it must be supported by regulation or legislation which enforces it. We should also note that a right implies a related obligation on someone else. My right to work – if I had one –

would imply an obligation upon someone else to employ me.

Beyond the system of compulsory school education for young people, the approach to education and training in Britain is essentially voluntary. However, the Government does make guarantees to certain sectors of the community that they will receive training if they wish. The picture is therefore not as clear cut as one might assume. Let us look at that picture more closely.

Education

Education in Britain is provided principally by the State. Everyone has the right to full-time education between the ages of 5 and 16 and the education authorities have a statutory obligation to provide it. For many, beyond the age of 16 lies continuing, further and higher education, which again is funded mainly by Government. Although no individual can be said to have an automatic right to such education in the sense in which I have used the term earlier in this discussion, places are available to those willing to make the necessary commitment and to attain the necessary academic standards. A system of local authority grants covering tuition fees and living costs also exists to support individuals undertaking further and higher education.

Training

Government policy

The picture in training is more complex, although the Government's basic policy position is clear. That policy is that training is and must remain primarily the responsibility of employers:

- they best understand what training is needed to meet business requirements;
- they profit from an effective investment in training (just as they do from any other investment, for example in plant or machinery). Effective training gives them a competitive advantage; it is right that they should provide the resources for it, just as they will pay the price in terms of competitive effectiveness if they do not make the necessary investment.

The United Kingdom conducted a lengthy experiment (over 25 years) with the alternative approach of using the imposition of

statutory levies on pay-roll as a means of in effect compelling employers either to provide training, or to pay for the provision of training by others. To administer this system they used a network of statutory industrial training boards. This method turned out to be ineffective. As much or more effort went into creative accounting designed to justify employers' exemption from levy as went into training. Employers complained that the system was bureaucratic and wasteful in the deployment of resources and had the effect of forcing unnecessary training activity on employers, while not encouraging them to relate their training activity closely to their real business needs.

In consequence, we are currently putting all except two of our industry training organisations on an independent, non-statutory footing. The industries concerned have put forward plans for converting the previous statutory boards into independent operations, which will have a major role to play in monitoring the skill needs of their sectors, and representing their sectors' requirements and concerns to Government. But they will depend on the support of employers in their sector for their continued existence, and many of them are rising to the challenge of producing services and materials which their sector will wish to purchase and use on a commercial basis.

We do not believe that the major training issue facing us at the present time in the UK is the *volume* of training currently undertaken. A survey in 1986/87 found that something of the order of £33 billion was spent in the UK on vocational education and training. That amounts to some 8% of Gross Domestic Product. Of that, employers spent £18,000 m.

Within that figure there are many firms which have developed excellent training practices. That is not because there are detailed regulations telling them how to go about training. The Government believes it is right that employers should determine the training arrangements within their own companies. As a result there is a wide variety of arrangements adapted to individual firms' circumstances. Some firms have chosen to negotiate formal agreements on training and vocational education with employees and their trade unions.

Examples include:

- A 4 years pay and productivity agreement, signed in 1988 at a Metal Box Plant, based around a modular training scheme with pay increments tied to satisfactory completion of training modules;
- Ford and the trade unions representing the companies 44,000 employees have agreed an Employee Development and Systems Programme which offers financial assistance to employees in a wide range of courses and other opportunities for personal and career develop, education and training.

These developments are to be welcomed and encouraged. However, to succeed there must be commitment on both sides and in the Government view this is more likely to be achieved if the agreement is entered into voluntarily.

Government guarantees two particular groups

I have dwelt on the employer focus of the Government's training policy to ensure that its central emphasis is clearly understood. But the Government accepts, of course, that it has important responsibilities in relation to the operation of the market for vocational education and training, in particular to ensure that individuals and particular groups of people have appropriate access to training. For example, the Government accepts that it must intervene in the training market to ensure particular sections of the community receive training. The Government accepts its responsibility to support the training of young people and the long term unemployed. This is a large scale commitment. £2,000 m has been allocated this year to meet the cost of this training.

Two major national programmes were developed during the 1980s to meet the needs of these groups: Youth Training (YT) and Employment Training (ET), each of which provides a package of training and work experience. In the context of our discussion of individual rights and entitlements, it is essential to note that central to both of these programmes is a guarantee of training to particular groups.

Under YT, the Government guarantees that every 16 or 17 year old who is not in education or employment will be offered training.

place on ET. In addition there are further, more generous, guarantees for special groups such as disabled people.

So implicit in both of these major programmes are rights to training which are defined and enforceable. These rights are backed up by very substantial Government funds. The Government meets the cost of a training allowance to the individual and much of the cost of the training. It is also worth pointing out that the resources available for the programme of training for the long-term unemployed allows many more than the guarantee group to benefit.

The framework

But the actions the Government is taking to enable and encourage individuals to undertake relevant vocational education and training do not end with these guarantees of places on programmes to particular groups of individuals. The Government accepts that it has an important role to play in ensuring that the training market works effectively, both to meet the needs of employers and the economy, and to ensure that individuals have the opportunity to undertake training to help them achieve their full potential.

Training, as I have mentioned, is primarily the responsibility of employers. The Government is reflecting this in the new national framework for delivering vocational education and training which it is establishing. We are currently establishing a network of 82 Training and Enterprise Councils covering England and Wales which will enable local employers to lead the public training effort, tailoring national training programmes (such as the two I have mentioned, YT and ET) to meet local needs. Each TEC will be an independent company. Their task will be to identify and meet the training and business growth needs of their local community. Their success will be measured against their performance in terms of agreed targets written into their contract with the Secretary of State. The TECs working in partnership with Government have an important part to play in increasing the amount and quality of training. To achieve that we must persuade many more employers and individuals of the benefits of training, let people know what training is available and ensure that the training is accessible.

The influencing role

While there is significant commitment to training in Britain, it is generally accepted that we lag behind some of our major international competitors in terms of the basic skill levels of the workforce. We also realise that increasing international competition will mean that the skill levels of our work force are increasingly important as a factor in our competitiveness. The Government therefore believes that a key task is to persuade employers and individuals of the benefits of training and to encourage closer links between the providers and consumers of training to ensure cost-effective training. There are clear signs that attitudes are changing under economic and demographic pressure. The EC labour force survey in 1989 showed a 70% increase over 1984 in the number of people receiving training in the 4 week survey period. There is still much to be done in terms of persuading more employers to treat their training as a strategic investment and an Action Programme aimed at doing that is planned for later this year.

But the individual also needs to be persuaded to play a larger part in his or her own development. The idea of training throughout life is not yet a fully accepted part of our culture. We must bring about a cultural change, but do not believe that legislation would be an effective means of doing so.

One new approach will soon be piloted in Britain. For young people aged under 18 who would normally have participated in Youth Training the Government has recently announced a pilot scheme of training credits. These will give young people a credit with which they can purchase training or education up to a value of £1,500. Some 45,000 young people will participate in this pilot early next year. It aims to increase motivation among young people, encourage them to be more discerning of their training needs as well as encouraging greater competition between training and education providers. It offers exciting possibilities of developing a consumer-led system of education and training provision rather than, as we have at present, an institution-led system. Perhaps delegates may wish to discuss the possible extension of such a scheme to adults.

But finance is an important issue to take into account for adults also. Our study of *Training in Britain*, which I quoted to illustrate the volume of training which is undertaken in the United Kingdom,

also showed that one of the barriers for individuals taking more responsibility for their own development was personal access to ways of financing training. A recent, and successful attempt to find a way to counter this problem has been the introduction by the Government of Career Development Loans. These were launched nationally in 1988, and are administered by commercial banks. The Government in effect insures the banks against any risks which they may incur. So far nearly £22m has been lent to over 9,000 approved applicants.

Making training more accessible

One of the major obstacles to access to training for employed people is their work! Employees working long hours, and unsociable hours can rarely spare the time to attend college courses or take time out of their work. Often their employers cannot guarantee regular day-release or arrange shifts around their requirements. Domestic commitments provide another obstacle. Many people – even if committed to their own training – are discouraged from attending regular college courses by the inflexibility of the attendance required of them.

It is clear that to encourage individuals to undertake training a more flexible approach was needed. For this reason the Government has for some years supported the development of open learning. The Open University is a leader in the academic field. More recently the Open College, which provides open learning courses from basic skills levels to managerial and technical subjects, has got off the ground. Wherever possible we encourage employers and training providers to consider a more flexible system of delivering training. There are now many hundreds of open and distant learning packages available with exciting possibilities with ensuring an open access system.

I have mentioned motivation and access. One important reform to our system currently under way, which is relevant to both of these, is the development of comprehensive national vocational qualification framework. The aim is to ensure that all vocational qualifications within the framework

– reflect assessment of practical competence as well as theoretical knowledge;

- can be awarded regardless of how that standard of attainment was achieved;
- are more accessible to the individual with clear routes through the system, helping individuals progress from one level to the next.

A well-understood system of awards and certificates with clear routes of progression for individuals will greatly promote access to training and motivate individuals to continue with their self-development, as well as helping employers and training providers offer more effective training to standards which everyone recognises and accepts.

This important reform, which began in 1986, will open access to the new National Vocational Qualifications to 90% of the workforce by 1991.

Providing information about training

All these changes make it more important than ever that people have access to accurate information about what training and qualifications are available. Here computerised information systems with databases of training opportunities available locally and nationally are being piloted. Training and Enterprise Councils will also provide advisory services in addition to the continuing important contribution the Jobcentre network and Careers Service will play.

Conclusion

The broad picture on training and vocational education in the United Kingdom is therefore one of a voluntary approach with employers taking the lead in the provision of training. The Government believes that in the context of this market-led approach, statutory rights to training are unnecessary, inefficient and ineffective. However, within the training market the Government does recognise its responsibility to ensure young people and the long-term unemployed have access to training and they guarantee this. Significant practical steps are being taken to open up access and ensure people have the opportunity to benefit from training.

To return to the opening theme of this paper, education and training is undoubtedly crucial to the economic success of our countries. I look forward to hearing from colleagues about their alternative approaches. ■

Present and Future Vocational Training Needs

How to develop access to training within the company throughout the employee's working life: methodology, organisation, attitudes

Jean-Yves Terrier, Director Social Affairs, Union of Industrial and Employers' Confederations of Europe (UNICE)

Vocational training is a long-term undertaking, which continues throughout a person's working life. It is also a long-term undertaking in the opposite sense, in that it has its roots in a good basic education and a successful transition from this basic education to the beginning of life in the work place. Yet another reason to regard it as a long-term undertaking is that we are trying more and more to carry out training according to plans and programmes which form part of the company's global strategy, bearing in mind anticipated internal changes within the company, and its present and future needs, as well as those of the employee.

The title of this working session is "The right and access to training". I for my part am going to talk to you about the methodologies, organisations and attitudes which make it possible within firms to develop "the broadest possible access" to vocational training, a training which is really tailored to needs and hence efficient, something which no "right" can guarantee.

Towards new working and training methods

Our companies, and the training bodies which work for them, are already doing a great many things, which one does not necessarily hear much about, their main concern being not to enhance their external image in this respect, but to sell good products. They know very well that training is a factor of competition and competitiveness between European firms, and between Europe and the USA and Japan, particularly in the area of quality.

Studies of careers development are no longer laboratory speci-

mens with nothing but curiosity value. They make possible very interesting long-term projections, the medium-term spin-off of which is better consensus between staff, management and unions on the decisions to be taken.

Performance evaluation, based on regular talks between employees and their immediate management carried out according to methods worked out with the interested parties and their representatives, is developing more and more at all levels of the hierarchy, from managing directors through to operators. This allows them to analyse together the results achieved in relation to the job description of the person in question and the objectives set the previous year, and to deduce from this new progress, career development and training objectives. The result is very exact and motivating, reducing as its does the shadowy areas engendered by the vagueness of non-dialogue.

Analysis of the global needs of companies with regard to new occupations based on their short-, medium- and even long-term development plans means that interesting comparisons can be made between the training needs thus uncovered and the consolidation of individual needs defined as a result of performance evaluation talks.

Throughout this process companies carry out, or have carried out, training which goes far beyond immediate preparation for the job of the moment. The management and forecasting tools of which training plans form a part are simple, well-known and easy to manipulate. In addition, over and above technical training, other forms of training are developing and will develop more and more: widening of the outlook through economic training, high-quality sensitisation to management methods and attitudes, or to communication with the aim of heightening people's capacity to express themselves and to listen to others, learning of foreign languages, and so on.

In some companies these working and training methods are already in use, in others this is not yet the case, but the advantages they bring with regard to the company's performance and that of its workers mean that they will become more and more widespread, starting with good dissemination of information, which is already partially carried out by specialist journals and bureaux, and which should be stepped up.

Small and medium-sized enterprises are in a different situation from large firms because of their size. When they concert their efforts, of which I have seen examples in practice, they can achieve results which are at least as good as those achieved by large firms.

I do not have the time within the space of this speech to talk in detail about these methods and these types of training. But, having myself taken part in elaborating and implementing them in various capacities, in different contexts and at all levels, from workers to managers, I want only to say that I support them totally, because I know that they work. I think too that their promotion could be recognised in an official and concrete way at national and Community level. But those who have already followed this path know what its limits are, and are trying to push them back.

A widened outlook

In order to explain these mechanisms to you clearly, I shall take as an example a company which has carried out little vocational training apart from essential training for the immediate job to be done. In this company the simple fact of taking the initiative towards real technical training has a powerful effect

- in itself, obviously, through its direct results for the job being done
- through the motivation it gives the people concerned as a result of the challenge it offers them
- through the encounters and discussions which take place during the training.

At the end of this phase those who are sensitive to developments begin to perceive the beginnings of new expectations and demands arising from the opening up of horizons this training gives: firstly, widening of the employee's outlook. What I am saying goes for executives and also for all other categories of personnel. This widening of outlook leads the people concerned to ask for greater participation in defining their own future training programmes. At this stage, the tools I listed briefly in the first part of my speech will be very useful, provided that they do not have the appearance of a bureaucratic structure imposed by the upper levels of the company hierarchy. It is for this reason that we said in the joint opinion of 26

January 1990 drawn up with our partners in the European Social Dialogue, that

> "Career-long vocational training for the needs of the company is the shared responsibility of the employer and the employee ..." (§ 5)
>
> "The employer informs and consults the employees and their representatives as necessary ..." (§ 7)

Real technical training gives widening of outlook for employees, and also for managers and their representatives throughout the hierarchy. They all discover that training makes possible future projections which were impossible before. It is at this stage that training becomes part of the company's forecasts of happy or less happy events to come and of the professional and geographical mobility they imply. It is at this stage too that the employees begin to have a little more confidence in the future and to discover that it holds real opportunities for their career development.

The joint opinion says in this regard:

> "If this is to be effective, company and individual needs must be clearly identified and planned in training plans or programmes appropriate to the size of the firm and drawn up in the framework of the firm's overall strategy...In this context, it is essential that account be taken of the needs of workers to improve their skills in line with the requirements of their job or in readiness for changes within the firm and of present and anticipated requirements of the firm."

At this stage, the widening of outlook which training gives to employees, management and employers causes new needs to appear, while at the same time showing limitations and, possibly, causing disappointment.

It is at this stage, for instance, that it becomes clear that such and such a person has not developed very much despite the great efforts which have been made, that another has perhaps not made as great an effort as he should have done, that a routine is establishing itself, that many people are following training schemes because they are on the programme, but without any great interest or good reason, etc.

In fact, more is expected of training than it can provide, and the result is a certain wastage of means.

Sound companies react before they get to this unfortunate stage. Better targetted initiatives are then undertaken

- very meticulous performance evaluation discussions and real use of these discussions for careful definition of training needs
- systematic application to all training of teaching methods which are suitable for adults and training in teaching for the trainers. The draft joint opinion devotes a whole paragraph to this subject.
- direct involvement of the management, which is in itself a training body, whose training role is sometimes made official in its own job description, in the company plan and in its evaluation of its own performance.

And when a company has done all this?

First of all, I must say that it has my congratulations, since this is already a great deal. Also, these different stages rarely happen in a very logical order, things regress, progress, stagnate, as you well know.

But I now want to move on to a final stage of development, which I consider to be of major importance: it is the stage at which "normal" vocational training, if I may venture to use the term, i.e. vocational training set up and carried out within a company applying the rules of common sense and professionalism already mentioned, reaches its limits.

A corporate example

How is one to go beyond these limits? In order to make myself clear, I will give an example.

In an average branch (about 500 people) of an industrial group we had, four years ago, a sales staff which had reached the limits of its competence. Their performance was seriously evaluated, they had all received commercial, administrative, management and ad hoc communication training, their technical background ensuring that they were competent, and those who were suitable for promotion to management posts had been promoted. There was no alternative therefore to recruiting from outside to fill these posts, which was beginning to create a serious malaise.

We therefore asked those members of the sales staff who wished to accept the challenge and apply for management posts to do so.

Ten, out of a staff of about sixty, did this.

We offered them the chance to undertake personal development programmes based on their deficiencies, whether a lack of self-confidence, of autonomy, of initiative or of a sense of responsibility.

This self-questioning was painful, the training programme lasted for a year-and-a-half. At the end of this time, 1 person had given up, 1 had "failed" and 8 were declared suitable for promotion. Out of 10 "incapable" people 8 had become "capable", and maybe the last two had only had their promotion postponed.

The personal development process

Technical training, management and communication training are already enabling us extensively to push back the limits of the men and women working in our firms. In addition they engender appreciable growth of interest, a broader outlook and increased motivation. But stamina is needed in this area, and the ability to keep pace with the needs of employees and employers.

It is exciting to keep pace with the personal development needs of staff, as in the example I quoted where the company's need dovetailed with a precise career plan on the part of the employee, since progress can be measured and the challenge is a very concrete one, even if often promotion is not a direct or immediate result. This process calls for active commitment by the people concerned, autonomy and direct involvement based on their expectations and their desire for self-improvement. It enables people to discover for themselves their own potential, in order to develop it, and to accept their own limitations, in order to abandon impossible dreams.

The joint opinion of 26 January 1990 says in §12 :

> "Any employee wishing to follow a course of training of his or her choice which corresponds to a need for self-fulfilment and to his or her own professional career development should be assisted to do so by means of training courses financed by public funds ..."

Here it is a case of a professional project which does not correspond to a need of the company, but the steps to be taken are the same in that the person in question is measuring himself against an objective to be achieved.

It would be very useful to look for the most enterprising and innovative examples in Europe, both in companies and training

bodies. I personally know of several. There is still a tremendous need to develop the exchanging of experience at European level in this area.

In the context of this procedure, a "right to training" would give no additional advantages, within the firm, either to this latter or to its employees. It would even be counter-productive. The real question, rather, is how very efficient practices can be made more widespread and encouraged, using the rich diversity of Europe, in order to gain new knowledge.

Conclusion

In my conclusion I wish to stress three points.

1. High-quality basic education and vocational training are essential if the citizens of the Community's Member States are to meet new challenges and grasp new opportunities. They are real investments. The future of the Community depends on the qualifications and the performance of its inhabitants.

This is the first point in the preamble of the joint opinion of 26 January 1990, which was written after the meetings of the Social Dialogue held between in 1989. This joint opinion deals with basic education, career-long vocational training and the transition between basic education and the beginning of working life. This work was useful and is worth deepening and extending, which are in the process of being examined, particularly with regard to the widest possible access to training throughout the employee's working life.

2. The capacity of companies and their employees to adapt to developments calls for geographical and professional mobility, either or both of which can often lead to one or several career changes in the course of a person's working life. This challenge will increasingly necessitate the use of tools of vocational training, management training and even broader training allowing managers and other categories of personnel to widen their professional competence and their personal approach and performance.

3. The types of training mentioned above enable companies and employees to make genuine progress. But they have their limitations, which can still be pushed back by allowing highly motivated volunteers to confront new challenges.

This personal development process is a most effective one if it is well adapted to each individual and is part of a precise professional plan. This is, to my knowledge, the most highly developed stage of vocational training for tomorrow.

The diffusion and promotion of all these ideas should gradually reduce the divergences between "rights to training" and "the widest possible access to training". ■

The Adult as a Learner: Towards New Trends in Workplace Learning

Development Trends in Vocational Continuing Training in the Federal Republic of Germany

Johannes Sauer, Federal Ministry of Education and Science, Federal Republic of Germany

The subject of "The Adult as Learner – New Trends in Workplace Learning" raises a highly topical question which to date has received little systematic treatment. Even the terms used are unclear: some people understand it to mean in-service continuing training, whilst others go one step further and understand it to mean the models of the learning organisation at the workplace or the integration of learning into the execution of work. Here too, I have more questions than answers to offer you, although the debate has been increasing considerably in the Federal Republic over the last few months.

Before I attempt to point out some trends in vocational continuing training, let me establish some definitions in order to avoid misunderstandings:

1. I shall not be discussing vocational training in schools and colleges. Nor shall I be dealing with the dual system of training, although this dual system in principle, and also in practice, envisages the intermeshing of work and learning.
2. Nor shall I be concerned with advanced training for career development regulated by training and continuing training schemes, through which the individual may gain an entitlement to occupy a higher professional position.

3. Nor shall I be discussing "on-the-job-training" methods, which is too static a concept. A constant qualification is defined here for a constant job. This is not a future-oriented question.

A new approach to working and learning

My thoughts are concerned with the question of how the process of adapting the individual to economic and technical changes and the active shaping of this process of change by the individual can best be organised and given methodological and didactic form. There is an interaction between qualification inherent in the system and change in the organisation of work.

The debate on on-the-job learning or on "work-oriented learning" makes it clear that the contrast between working and learning built up in the past is becoming increasingly questionable. It is part of the Taylorist approach to separate learning and working. However, this Taylorist approach is starting to disintegrate, because modern technology is opening up new freedoms.

I wish to clarify this process through a quite simple question: What is an interesting job? The answer is: An interesting job is a learning-intensive job in which I continue to learn through variety and experience and thus actively shape the process of development. Let me make a polemical comment at this point: we have too many uninteresting jobs, and we therefore need to offset this by offering interesting opportunities for continuing training. The question to be answered in enterprises today is: "How can I create interesting, i.e. learning-intensive, jobs, in an economically efficient way?"

Differentiation of training strategies

The economic and technical processes of change necessitate changes in qualifications and bring changes in qualifications in their wake. These changes in qualifications result from the balancing of economic and technical necessities, organisational conditions in the enterprise and the changing individual expectations of the individual employees. A warning must be given against seeing the changes in qualifications only in relation to and as a product of technical developments. The expectations of employees, who today have a higher standard of education than fifteen years ago, are at least as important in establishing the requirement for continuing

training as the technical conditions. The new communications technologies are creating fresh scope for organisation and fresh scope for individual expectations.

As a result of the dependence of the qualifications requirement on technology, individual expectation and business organisation, it can be said that continuing training in enterprises, including continuing training arranged within the enterprise but carried out externally, has grown sharply over the last ten years, at the same time as the training provision is being increasingly differentiated and specialised in accordance with the needs of the enterprise. A diversity of forms can also be noted. It is estimated that in the Federal Republic more than 50% of all continuing training provided is in-service, organised by the enterprise or financed by the enterprise.

A clear trend is apparent in the efforts of enterprises, in order to satisfy their specific needs for qualifications, to shift responsibilities and decision-making powers down to the lower levels. This trend towards decentralising continuing training within the enterprise relates to the fact that there is permanent pressure towards greater efficiency in companies.

Let me make an initial summing-up at this point. Since the requirement for qualifications at the lower levels of enterprises arises from the balancing of the interests of the organisation of work, qualification of employees and use of technology, continuing training strategies are differentiated. Continuing training strategies and forms of organisation must be developed in the enterprise which enable the lower levels of the hierarchy and organisational units to develop their own "adapted" continuing training strategies, i.e. those appropriate to the situation. External continuing training facilities are increasingly incapable of doing this.

New forms, new methods

The increasing differentiation of qualifications requirements in enterprises is resulting in an increasing diversity of different forms of continuing training, of which the "learning shop", "quality circle", assessment centre, learning factor and forms of CBT are just a few examples. This diversity of forms is also continuing to increase. It can be seen at the same time that these forms and methods are applied to very differing extents in the individual enterprises. The

enterprise learning area is now so varied that it is impossible to categorise according to particular methods: the quality circle in the Siemens company is organised differently than in the Bosch company, and the learning shop at BMW looks different than that at VW or Volvo. It is also virtually impossible to explain from outside which methods can be successfully used where.

With this in mind, it is a vital task to decide how decentralised determination of the need for continuing training and the provision of decentralised continuing training can be organised in the enterprise. The foreman must ultimately consult his staff on this point and decide what need for qualifications is to be satisfied how, what method is applied – there is no "one method" for on-the-job learning. Let us take an example.

A textile fashion house was given an award in an In-Service Continuing Training- competition. Continuing training on the job is organised as follows here: Once a year each department considers business objectives and develops qualifications objectives with the head of department. This is coordinated with management. One or more employees are then selected in each department who will familiarise themselves with this new departmental task – such as improving sales techniques – and then assume the role of trainer for their colleagues. It is clear from this example that many methods of in-service continuing training make use of group dynamics. The aim is to strengthen the cohesion of the group through joint learning and conversely to promote joint learning through the cohesion of the group.

Let me take a quite different example from the current political situation in Germany: the problem of economic and monetary union between the Federal Republic of Germany and the German Democratic Republic on close examination is a problem of vocational post-qualification and re-qualification. It is estimated that 2.5–3 million citizens of the GDR will have to undergo vocational requalification. That would overtax any system of training. Businesses in the Federal Republic which are investing in the GDR, but also GDR enterprises, are developing new qualification strategies in view of this situation.

A West German major bank, for example, is not only linking its granting of credit to particular qualifications requirements which

have to be met by the borrower, but is even imposing qualifications stipulations and making consultancy skills available so that these stipulations can be met appropriately.

Self-teaching strategies are prominent in these consultations, in some cases with the assistance of modern technology, particularly when cognitive learning and ability is the aim.

A far more difficult problem is the change in attitude from the economic object of the planned economy to the economic subject of the market economy. It is becoming increasingly clear that the most successful are "stand-by" strategies, i.e. one or more employees from the Federal Republic are integrated into each team of employees from the GDR in the hope that the employees from the GDR will adapt to the new ways of working. This is apparently proceeding very successfully and rapidly.

Summary

Let me sum up:

1. The proportion of work-oriented learning in all continuing training is constantly rising due to changes in technology, organisation and qualifications.
2. Enterprise qualifications strategies and qualification methods are being increasingly differentiated. Differentiated qualification strategies are virtually trade-marks of an unmistakeable business culture.
3. The stronger the business-specific qualification, the more unique work-oriented learning becomes. This cannot be tied to particular teaching and learning aids.
4. The many different methodological approaches can be classified in two categories:
   - group-oriented continuing training strategies
   - individualised continuing training strategies.
5. The classical concept of adult education, adapted from school learning, is increasingly becoming too narrow. The Taylorist approach has to be overcome here too.

6. Work-oriented learning or the incorporation of learning elements at the workplace cannot replace traditional continuing training, but the importance of this "external" continuing training is relatively on the decline. More than in the past, a dual system of places of learning is necessary in continuing training. This necessitates traditional continuing training institutions facing up to the changes in industrial reality.

7. There is a tendency for problems of segmentation in in-service educational work to decrease, since activities with low qualification requirements are greatly in decline. At the same time the occupied population rate is rising, with the result that in-service continuing training is increasingly becoming available for every member of the occupied population.

8. The qualification problems of groups which are not part of the occupied population for different reasons are increasing as a result of the growing importance of in-service educational work. At the same time continuing training provisions of external institutions are meeting the qualifications needs of enterprises to an ever decreasing extent. New models for opening up in-service continuing training to groups who are not part of the occupied population have to be tried out. ■

Computer Integrated Manufacturing and Continuing Vocational Education and Training

New ways of cooperation between enterprises, universities and an adult training institution in the Larger Vienna Area

Dr Arthur Schneeberger, Institute of Educational Research for the Austrian Economy, Vienna, Austria

The special features of new technologies used in the manufacturing process and in its related fields make it necessary to find new ways for vocational training and education as well as, in particular, for the cooperation between enterprises, the institutions for vocational training for adults, and universities.

Computer-integrated manufacturing (CIM)

CIM consists of integrating applied information technology into the production process and its related fields (i.e. computer-aided engineering, production planning and controlling, computer-aided manufacturing). The basis of computer-integrated manufacturing are synergy effects that are the result of the combination of various technological and economical functions that form a harmonic whole. Thus, new forms of qualifications and, in particular, the combined use of several qualifications (multiskilling) become necessary.

In the day-to-day reality of Austrian companies, CIM is being used rarely, the application of single components of production-related information technology, such as CNC or CAD, however, is much more wide-spread. In the year 1989, 665 industrial robots were used in the whole of Austria. But many enterprises are realising that, technologically-wise, CIM represents a major leap forward and are therefore now planning to use it in the future.

As a consequence of the structure of the Austrian economy – which for its greatest part consists of small and medium-sized

companies – important technical innovations can only be dealt with by concentrating forces in larger regions. In the following I will report on a case in the Larger Vienna Area. Apart from that, independent projects and new developments have been started also in some of the other Austrian provinces regarding vocational training and education in the field of applied information technology in the manufacturing process and its related fields.

The Vienna CIM-Centre

The exemplary case, the essential features of which I am going to outline here, is the CIM-Centre of the Institute of Economic Promotion of the Vienna Chamber of Trade, which was opened in the spring of 1990. The necessary know-how is – to the greatest extent – provided by means of a contract of cooperation between this Institute and the Institute for Manufacturing Technology at the Vienna Technical University. Furthermore, the Centre receives financial support as well as know-how from international hardware and software companies (IBM, Apple) and from a bank (the 'First Austrian Bank' or 'Erste Österreichische Sparkasse').

A typical feature of the Vienna CIM-Centre is that it combines two essential functions for the introduction of new technologies: i.e. further vocational training and education on the one hand and business consulting on the other. It is the aim of this institution to help entrepreneurs who either consider or plan making use of CIM-solutions, or who already apply them manage these two tasks. This is a process in which the companies play an active role. Therefore, the two areas which are offered by the CIM-Centre, namely training and business consulting, overlap in different ways. In my presentation I will, however, concentrate only on the vocational training and education programmes offered by the Centre.

Vocational training and education programmes

As a first step to make known the Centre's activities for vocational education and training, an introductory course is organised, in which the most important approaches to computer integrated manufacturing are explained by means of a high-tech manufacturing plant. The focus here is on a practice-oriented realisation in the course of which use is made of the most modern instruments and

equipment, such as networks of CNC machine tools and CAD/CAM systems up to fully automatic assembly by robots.

Subsequently, training participants choose – with the help of trainers – one or more programmes or courses from among the wide range of training programmes offered, such as

- CAD (computer-aided design),
- CAM (computer-aided manufacturing),
- NC (numerical control),
- CNC (computer numerical control),
- CAT (computer-aided testing),
- robotics,
- CIM (computer-integrated manufacturing).

If the specific needs of the training participants cannot be fulfilled by means of the existing stock of programmes, new courses are developed and designed provided that the number of students interested is between six and eight. Then the respective programme can be carried out either in the Institute of Economic Promotion by an external lecturer, or in an enterprise which has at its disposal the necessary training opportunities. A phenomenon that can be encountered very frequently is that 'training lobbies' in companies form initiatives in order to advance the creation of some specific programme that does not yet exist.

The CIM-Centre does not offer only individual courses and programmes concerning vocational training and education, however, but also training modules covering complete job profiles. Examples would be modules for:

- CAD designers,
- NC technicians,
- CAM technicians, and for
- CAM organisers.

It can be seen that the courses and programmes offered by the Centre do include job-oriented training with final examinations, but are nevertheless not designed for young people without any previous practical work experience. The target group for these training activities are economically active persons whose formal educational

background may vary. Criteria for admission are job-oriented work experience as well as occupational or professional goals. This includes both employers and employees.

After a first advisory talk, participants are selected and the groups attending the different courses are formed. A maximum of 16 and a minimum of eight students are selected for one course. Frequently, inhomogeneous groups are formed as far as the participants' vocational qualifications are concerned, which stimulates the learning process within these small groups.

The groups' structures vary strongly depending on the topic or subject-matter dealt with. In most of the cases, however, groups consist of persons who have some job-oriented technical experience, ranging from skilled workers or technicians to graduate engineers or even entrepreneurs. Apprentices are admitted only if they can prove to have some previous knowledge or experience and only under the condition that they have passed successfully their first years of apprenticeship. Apprentices are, however, often offered special courses.

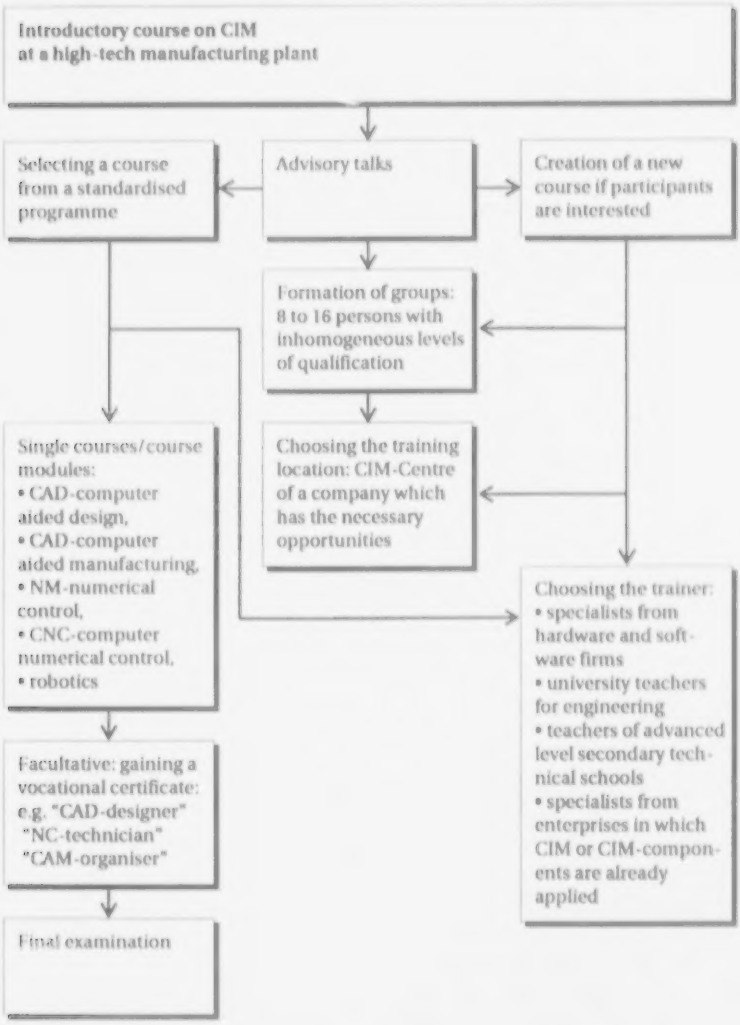
Courses are held by many different kinds of lecturers: university professors, technicians and engineers coming from course-related branches, as well as entrepreneurs, general managers, or managing directors from software companies. All of the lecturers are experts who either apply or advance the development of CIM-related software either in companies, at universities, or in marketing. One of the basic requirements for a person to be admitted as a teacher in the CIM-Centre is the ability to impart technological knowledge as 'product-neutral' as possible, which means that he is not allowed to focus his instructions on one specific software package only; on the contrary: he is supposed to offer a good survey of the market situation.

Duration of the courses: Basic training courses for production-related computer technologies have a duration of between 40 and 72 hours. Continuation courses last another 24 to 180 hours. 80 % of these courses are attended in the evenings several times per week. Consequently, it takes a student several years to complete his training in a modular part-time course to become a CAM organiser, for instance.

The majority of participants in CIM-courses come from the fields of mechanical engineering and the metal working industries. In the

Table 2:

Design and Structure of Continuing Vocational Training and Education at the CIM-centre


Introductory course on CIM at a high-tech manufacturing plant
Selecting a course from a standardised programme
Advisory talks
Creation of a new course if participants are interested
Formation of groups: 8 to 16 persons with inhomogeneous levels of qualification
Single courses/course modules:
• CAD-computer aided design,
• CAD-computer aided manufacturing,
• NM-numerical control,
• CNC-computer numerical control,
• robotics
Choosing the training location: CIM-Centre of a company which has the necessary opportunities
Choosing the trainer:
• specialists from hardware and software firms
• university teachers for engineering
• teachers of advanced level secondary technical schools
• specialists from enterprises in which CIM or CIM-components are already applied
Facultative: gaining a vocational certificate: e.g. "CAD-designer" "NC-technician" "CAM-organiser"
Final examination

Vocational Training Programmes on the Workplace in Greece

Yannis Sofianopolous, Vice President of the OAED Manpower Employment Organisation, Greece

Background

During the last years, the unemployment rate in Greece has been around 7,5%–8 % – a percentage which, undoubtedly, is found to be at a dangerously high level. In a few words, unemployment in Greece is explained by macro-economic factors, by very low or even negative annual rates of development, as well as by the quality – examined from the aspect of qualification requirements – of the available manpower. To a certain extent, the unemployment is created by the mismatching between, on the one hand, the educational and professional abilities of the workforce and, on the other hand, the employers' needs. This unemployment structure is confirmed by the daily experience in our country of the co-existence of many unemployed and many vacancies – vacancies which unfortunately are impossible to cover, as suitable people are missing in the labour market.

However, the discussion about the character of Greek unemployment leads us to a brief examination of the educational system. It can be said that, more or less, there exist a students' orientation towards tertiary studies as well as a provision of studies conferring general knowledges. Graduates at all levels are mostly rather unskilled and unable to be employed other than for general duties. A very recent survey, carried out by our organisation, proved that these unskilled persons have the highest unemployment rate in 50 out of the 52 Greek prefectures. The non-existance of a well-organised and efficient training system which would respond to the needs of the economy for a well-trained workforce has, of course, an impact on the increase of unemployment among young people but, above all, it delays the efforts for development of the Greek economy and decreases its competitiveness. On the other hand, the private sector of

Further, in spite of the fact that almost 65% of the Greek industry and handicraft is concentrated in the Athens and Thessaloniki greater areas, about 55% of the related firms actually participate in the programme. As to these last two figures, we have to consider the fact that information is much easier in big cities than it is in the regions.

Finally, it should be mentioned that the duration of training should not exceed 500 hours per year and per person with at least 25% and 33% of the theoretical lessons in industry and in services respectively.

A complete evaluation has not yet taken place. At the end of May, 1990, a preliminary, or partial, study started, and later this year, an integrated evaluation study will be submitted to the Social Fund. In the meantime – just to help ourselves in the face of such a demand for this programme and also to protect in an even safer way national and Community money available for this programme – new strict criteria have been established since May, 1990. From now on, new training proposals from the companies will be examined according to these criteria.

We believe that this recent development which has been decided upon by the social partners, who are almost equally represented in our organisation, will essentially promote the purpose of the programme: to be a programme that in reality offers continuing vocational training in our country. ■

Reports

Planning, Follow-up, Evaluation

R 91:3

The seminar *New Challenges in the Education and Training of the European Workforce* was organised by the Swedish Ministry of Education and the Swedish National Board of Education in co-operation with the Commission of the European Communities and the European Free Trade Association. It addressed itself to delegates of EC and EFTA countries and aimed at discussing policies for education and training of the labour force in a changing European economy.

This report is a collection of all the papers which were presented at the seminar by contributors from different countries. Further documentation of the seminar is available in the following reports, also published by the Swedish National Board of Education:

Final Report. Report number R 91:2

Lars Arvidson & Kjell Rubenson:
Education and Training of the Labour Force in the EFTA Countries.
Report number R 91:4

Swedish National Board of Education

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near future, the plastics industry will also be integrated into the programme of the Centre. In CAD-courses, on the other hand, the fields of work of the participants vary to a much greater extent: apart from the above-mentioned branches, electrical engineering, electronics and construction can frequently be encountered here. A unique phenomenon are CAD-programmes for stove-fitters, which are based on a special software programme developed by Apple.

Basically, the CIM-Centre is conceived as an opportunity for small and medium-sized companies to get access to new manufacturing technology. This does, however, not exclude employees of large enterprises from participating in the courses. At the moment, two training modules are offered for CAD designers: one for small and medium-sized businesses and another one for industrial enterprises. At the end of both of these modular courses, a final examination to become a CAD designer can be taken.

The 'Inter-Universitary Course for CIM'

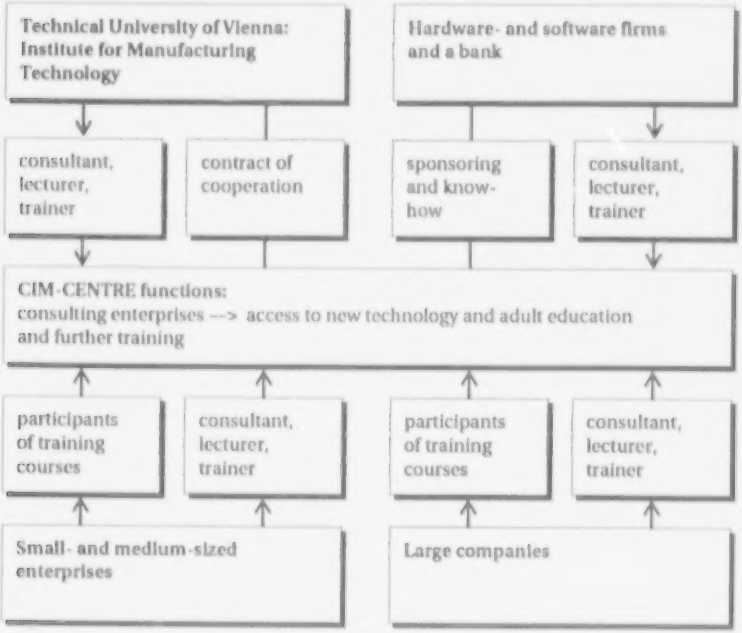
I have given you a brief description of the vocational training activities of the CIM-Centre of the Institute of Economic Promotion in Vienna. For the near future, much is expected in Austria of yet another new form of cooperation between universities and companies. In the autumn of 1990, an 'Inter-Universitary Course for CIM' (IUCCIM) is started. It is organised by the Vienna University of Economics and Business Administration, the Vienna Technical University, and by some major hardware and software companies. This study course is connected with the CIM-Centre via the Institute for Manufacturing Technology at the Vienna Technical University, which plays an important part in both above-mentioned training programmes.

The inter-universitary study course is embedded in extensive, long-term research activities and is sponsored by international companies (IBM, Digital Equipment, Siemens, SAP), all of which have offices in the Larger Vienna Area.

The target group of the inter-universitary study course are top managers, the middle management, as well as specialists employed by enterprises which are occupied with putting into practice CIM-projects or which will do so in the future. It is planned that, apart from the technological aspects of CIM, knowledge related with business administration is conveyed there.

Table 1:

Cooperation between Companies and the Technical University with the CIM-centre


Technical University of Vienna: Institute for Manufacturing Technology
Hardware- and software firms and a bank
consultant, lecturer, trainer
contract of cooperation
sponsoring and know-how
consultant, lecturer, trainer
CIM-CENTRE functions:
consulting enterprises --> access to new technology and adult education and further training
participants of training courses
consultant, lecturer, trainer
participants of training courses
consultant, lecturer, trainer
Small- and medium-sized enterprises
Large companies

Furthermore it is planned that this study course consists of modules and lasts for four semesters. Not more than twenty students shall be admitted to one training course. For the purpose of practical work-oriented seminars, such a training course will further be divided into smaller groups, all of which will have their own instructors.

All these above-outlined examples for new ways of cooperation between companies, universities, and vocational training institutions in the Larger Vienna Area show clearly that new information technology in the field of manufacturing and related fields make it necessary to find new answers for the organisation of work-related adult education and training. ■

economy hardly appears ready to train the personnel, even if there has been great improvement during the very last few years.

Until a few years ago, while the perspectives of the results of 1992 were inconceivable and before Greece in the early 1980s had agreed with the Commission of the EC for gradual transition phases to be implemented until the final European integration, there were very few, rather large and well-organised enterprises that were interested in their employees attending programmes for vocational training. As to the trade unions, they were absolutely ignoring the necessity for improvement of the educational level of their members, and they never negotiated about this issue with the employers.

(In this context, a few more characteristics of Greek firms should be considered. It is, for instance, important to mention that only 1% of the Greek industrial plants employ more than 50 persons, and that almost 90% of the firms do not employ more than five persons.)

Under these circumstances, the entrepreneur would just care to face the daily problems of his production, and whenever the need for a better organisation of his firm or training of his employees was discussed with him, he would use a lot and often peculiar arguments for not accepting such a need.

During the same long period, the late 70s and early 80s, the public services and the organisation under public interest were absolutely enchained by the bureaucracy. They did not accomplish any modernisations and were also ignoring the impacts of training on the amelioration of the productivity of these services. A more or less similar situation could be discovered in the area of local government, which consists of about 300 municipalities of any shape as well as of 5,000 small communities.

Apprenticeship and vocational training programmes

I have selected just a few, but in my view rather important points to help you understand the deep gap which exists between the academic educational system and the qualifications and skills needed for economic development. So, there will be the obvious need for closing this gap. With a variety of problems in the Greek economy and society, it was the State that came first to offer programmes of vocational training for the labour force. The private sector of the

economy created a few schools for technicians and some other professions, but at least the schools of technology were in most cases badly organised and finally not attractive.

The official vocational training system in Greece is provided mainly by the State and by the following institutions: firstly, by the Ministry of Education in technological schools where the young graduates coming out of compulsory education are accepted, and secondly, by the Greek Manpower Organisation, OAED, which is very well-known. The OAED implements two systems: the apprenticeship system and the accelerated vocational training system.

The apprenticeship system addresses itself to youngsters, graduates of compulsory education, and the programmes last up to 3 years. It operates according to the dual system. There are about 10,000 students every year in about 50 centres all over Greece.

The accelerated vocational training system addresses itself to adults and the programmes last for not more than 12 months. There are about 4,000 persons that attend these programmes in about 40 schools, also all over Greece.

Both apprenticeship and accelerated programmes are strictly addressed to unemployed people who receive training mainly in various technical specifications.

In addition to the above-mentioned system, vocational training for the unemployed is provided by a few State-run organisations, by local authorities and by non-profit associations. This training especially concerns scientific qualifications, although not on an extended scale. In most cases, this kind of training is given in the form of seminars and does not include practise.

A new programme for workplace training

All the actions of vocational training described above, although they are absolutely necessary for the Greek labour force, do not answer the question of how to sufficiently cover the gap defined above. For such a purpose, a flexible legislative and economic framework is needed.

One step in that direction was the proposal to implement training programmes at the workplace for people already working within firms. Such a programme started in 1981, initially on an experimental basis, and, right after, on a regular basis. This programme is man-

aged by the OAED and is based on a law which came into effect in 1981 and was later revised in 1982 and 1986. It offers on-the-job training to the employees of private enterprises in agriculture, industry, construction, commerce, tourism and other services.

The financing of the in-firms-training programmes is provided almost in equal shares by the enterprises, the European Social Fund and the OAED. It is the firms that decide which kind of training is needed for their personnel and estimate the cost of that training. The whole proposal is submitted to the OAED which decides about each acceptance according to the existing presuppositions. The control of the correct implementation is carried out by OAED, the Ministry of Labour and the Community.

The main purpose of within-the-firms training is the improvement of labour productivity which will contribute to the increase of the competitiveness of Greek enterprises. Thereby, one expects to conserve existing employment, prevent possible unemployment and, eventually, increase employment by the creation of new jobs. Of course, retraining, either because of structural reorganisation or because of introduction of new technology, is included. As is probably easy to understand, this programme is more helpful in undeveloped regions where it is hard to find sufficiently trained labour.

My previous analysis could explain the huge increase rate in the demand of this programme. In 1981, the first year of its implementation, there was just one enterprise that participated and 85 persons that were trained. In 1983 there were 21 companies and 3,425 employees trained. In 1985 the figures were up to 46 companies and 2,630 employees, in 1987: 183 firms and 5,835 employees, and in 1989: 2,080 enterprises and 63,650 employees. As to estimations for 1990, there is talk about 2,850 companies to participate and 80,000 employees to be trained at an amounted cost of about 25 billion Drachmas (approximately 130 million Ecus). For the record, the actual demand was 260 billion Drachmas for 6,800 enterprises.

Concluding remarks

A study of a few characteristics of the participants shows that approximately 60% of the trainees are over 25 years old and that 62% of them are men. Only about 45% of the participants are skilled or semi-skilled.